

digit **FastTrack**

YOUR HANDY GUIDE TO EVERYDAY TECHNOLOGY

TO Android



- ▶ What is Android
- ▶ The Basics
- ▶ Managing contacts
- ▶ Email
- ▶ Phone Settings
- ▶ Photos and Videos
- ▶ Chat and GPS
- ▶ Android Market
- ▶ Apps to try
- ▶ Tips and Tricks
- ▶ Fix common issues
- ▶ Android 3.0



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to

Android

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Introduction

This Fast Track to Android gets you started with your latest Android phone right from the basics to advanced tinkering. Chapter 1 serves as an introduction to the Android platform and why you should buy an Android phone – if you haven’t yet!

Next, we go on to explain how to accomplish the most basic things on your Android phone, from making phone calls and sending texts, to managing your contacts, alarms, reminders and setting up your calendar. Chapter 4 goes on to explain how to use the Settings application to configure how your phone looks, sounds, communicates, protects your privacy, and operates in many other ways.

Now that you are pretty versed in the basics of Android, we will show you how to productively use the Photos and Videos applications to take stunning shots, view galleries and watch videos on your shiny new 4.3-inch screen. We will even show you how to use your phone to navigate using GPS, how to stay connected with friends on the go with the Chat application and how to find anything on the internet with Android’s Search function in chapter 6.

Chapters 7 and 8 will introduce you the amazing world on Android apps, where you can find third-party apps to do almost everything a phone is capable of, from telling you what song is playing when you hold up the phone, how much that book you’re holding costs at a number of web sites and local stores, or even adjust your phone’s ringtone or volume based on where you are. The chapter 9 on tips and tricks will help you use your phone even more productively.

Finally, chapter 10 chapter covers a few of the basic problems you might encounter and helps you take some steps to fix them. Your phone is a complicated piece of equipment. Sure, it’s small, and it appears relatively simple on the outside, but a lot of little things can go wrong. We don’t want to scare you, though. Most of the problems you will encounter are pretty simple to resolve using the instructions in this chapter. 

1 Android

Android is Google's mobile operating system, which was initially developed by Android Inc. but later acquired by Google in 2005. It is based upon a modified version of the Linux kernel.

It is currently the world's best-selling smartphone platform, dethroning Nokia's Symbian from the 10 year top position, according to Canalys. In India, it has a strong presence with a plethora of options from most major companies. Some of the popular handsets with the current prices are listed below:

Motorola

- Quench – ₹12,299
- Charm MB502 – ₹13,499
- Flipout – ₹15,199
- Backflip – ₹17,849
- Cliq – ₹20,000
- Milestone – ₹22,949
- Milestone XT720 – ₹25,399

Samsung

- I5503 Galaxy5 – ₹8,846
- I5801 Galaxy3 – ₹10,769
- I5700 Galaxy Spica – ₹12,307
- I7500 Galaxy – ₹12,499
- Galaxy 551 – ₹12,799
- I9000 GalaxyS ₹27,403

Sony Ericsson

- XPERIA X8 – ₹13,950
- XPERIA X10 mini ₹12,899
- XPERIA X10 mini pro – ₹15,769
- XPERIA X10 ₹27,399

HTC

- Wildfire – ₹14,799
- Legend – ₹22,650
- Hero – ₹22,916
- Magic – ₹24,615



Android lets you play around with all functions and features

- Desire – ₹26,599
- Desire HD – ₹28,000

LG

- Optimus LG GT540 – ₹10,749
- Optimus One – ₹13,500
- GW620 – ₹14,903

Android has a large community of developers writing apps that extend the functionality of the devices. There are currently over 200,000 apps available for Android. Android has seen a number of updates since its original release. These updates to the base operating system typically fix bugs and add new features. Generally each new version of the Android operating system is developed under a code name based on a dessert item.

The most recent released versions of Android are:

- 2.0/2.1 (Eclair), which revamped the user interface and introduced HTML5 and Exchange ActiveSync 2.5 support.
- 2.2 (Froyo), which introduced speed improvements with JIT optimisation and the Chrome V8 JavaScript engine, and added Wi-Fi hotspot tethering and Adobe Flash support.
- 2.3 (Gingerbread), which refined the user interface, improved the soft keyboard and copy/paste features, and added support for Near Field Communication.

Upcoming versions of Android are:

- 3.0 (Honeycomb), a tablet-only release which supports larger screen devices and introduces many new user interface features, and supports multi-core processors and hardware acceleration for graphics. A preview of the Honeycomb SDK has been released and the first device featuring this version, the Motorola Xoom tablet, is scheduled for release in the first quarter of 2011.

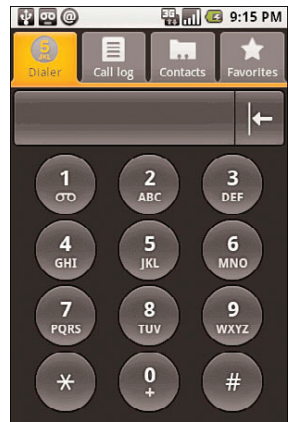
Android Market

Android Market is the online software store developed by Google for Android devices. An application program ("app") called "Market" is pre-installed on most Android devices and allows users to browse and download apps published by third-party developers, hosted on Android Market. Around the end of last year, there were about 2,00,000 games, applications and widgets available on the Android Market, with an estimated 2.5 billion total downloads. **d**

2 Android Basics

At one point in the not-so-distant past, cell phones were primarily used to make and receive phone calls and text messages, and of all the wondrous things your Android can do, these basic functions should be handled the first. The Phone shortcut on the central home screen simply links you to the Phone tab inside the Contacts application. On the next screen you'll see four tabs on top for Keypad, Call Log, Favorites and Contacts. The Keypad is like any other 12-button touchpad with a bottom row containing three buttons, usually a green call button to make the connection (same as hitting your phone's call button), a backspace/delete key and one as a shortcut to sending texts or dialing voicemail.

The exact details may differ as per your manufacturer but the functions will mostly stay similar. For instance, an HTC has a permanent 'Phone' button on the home screen and a slightly modified dialer setup where your recently used contacts appear above the keypad and when you type out the first few letters of a contact's name, their name comes up in the list above the keyboard.



A convenient touch dial pad

2.1 Call Log

The Call Log, also called Recent on some models, keeps track of all incoming, outgoing and missed calls, indicated clearly by colour-coded arrows. For faster dialling, you can select any number from this list and hit the green phone icon to connect. Pressing and holding on a particular entry pops open a menu with various options that allow you to edit the number before calling, send a text message, add to your contacts or remove it from the call log. Using the Clear Call Log option from Menu you can clear out all the calls and start re-building the log. Another tab on the tab takes you to Contacts and Favorites which are both discussed in the next chapter. If you have used Gmail, Google Talk, or any other service to send or receive messages, you've already created a list of Google contacts and making and receiving calls and SMSs on your phone keeps adding new names to this list. Even if you do not

care much about it, this is an automatic back up service – and that’s never a bad thing.

2.2 Contacts and Calls

For storing a new number, dial it on your keypad and hit the Add to Contacts tab if it is there or press Menu to open it. Now you can fill up the remaining fields in the entry form for that number and save it to contacts. To answer a call, you can use the two ‘slide bars’ near the bottom of your screen where your thumb will usually be resting and the call can be received or rejected with just a flick on the screen. To stop the ringing or vibrating, simply lower the volume on your phone. When you slide the bar to accept the call and put it against your ear, your phone will automatically turn off the screen to conserve battery or cause erratic keystrokes to be detected. On pulling the phone away from your ear you’ll see an in-call options screen with straight forward options such as Mute and Speaker, whose icons will come up in the Status bar to keep you informed if your microphone is turned off or if the call is being played through the phone’s speakers. To un-mute or put the speaker off, you can simply press these buttons again.


Hitting the Hold labeled option mutes the sound both ways, allowing you to move freely around or pull up something else on the phone. A Hold icon also appears in the Status bar to remind you that you have a call on hold. From any application you can open the Notifications panel and touch the entry for the call on hold to return to the usual call screen. Just next to the caller’s image or the generic Android icon, a counter is present to keep tab of how long the call has run so far. There is an End call option too which serves the same purpose as the red button on your phone. If your contact has uploaded a picture as a Google Talk or Gmail icon, or you’re connected on Facebook, you may see their picture in your Contacts or while making and receiving calls. Else, the space will most likely display the number in use and the familiar green Android icon.

You can use the Voice Dialer application to place a phone call by speaking the name of a contact or a phone number. You can launch the app by touching the Voice Dialer button in the Launcher or on the Home Screen or through a Bluetooth headset supporting voice recognition or voice dialing. When the Voice Dialer opens, it not only listens to your spoken instructions but also keeps displaying hints on how to use it best. Saying ‘Call’ followed by the contact’s name will dial the number and you can carry on from there reading the instructions and tips on the screen.

If you accept a new call when you're already on a call, you can switch between the two callers or merge the two calls into a single conference call too. To switch between current calls use the Swap button on your in-call options screen, this places the present call on hold and connects you to the other call. If your service provider lets you support conference calls, you can use the Add Call option that places the first caller on hold and you're prompted to dial the second caller. After connecting to the second call, touch Merge Calls and the new participant will be added to the conference call. To remove a caller now or talk privately to one of them, use Manage on your phone. Touching End will disconnect all callers together.

2.3 Messaging

The next most commonly used feature on any phone would definitely be text messaging. On your Android phone, even the plain exercise of typing out an SMS becomes a fun-filled experience! Touching the Messaging icon on the Home Screen or in the Launcher opens the Messaging window where you can create a new message or open an on-going message thread. On touching the New Message tab near the top of the screen opens an empty message screen. As you enter the phone number in the To field, matching contacts appear and you can touch a suggested recipient to include it in the box. Touch the composition text box and you are ready to start entering your message. Messaging automatically converts a message into a multimedia (MMS) message if you attach a file or send it to an email address instead of a phone number and add a subject. Pressing the Back arrow while in the middle of composing a message saves your text as a draft which can be later resumed for completion.

On sending the message, the Message window opens with your message after your name and as you view the responses and send additional texts, a message thread is created. On receiving a message, a notification will pop up on the Status bar which allows you directly open the new message received. If the message contains a media file, touch Play to view, watch or listen to it. Touch and hold the file to open a menu with an option for saving the message on your SD card. Touching and holding the message itself gives you various options to for working with the message and its sender's information. You can forward the message to a new recipient, lock it so it will not be deleted if you reach your storage limits or while deleting a thread, or view message details through this menu. 

3 **Contacts, Calendars and Reminders**

3.1 Contacts

The next thing at hand will be to familiarise yourself with quick browsing of contacts and effective compilation of reminders and appointments. A big advantage of the platform is how it synchronises easily with your Google account giving you fast and easy access to people you want to reach instantly. When you first turn on your phone and sign into your Google account, all your existing contacts from there are downloaded to your phone and from then on, any changes to your Google contact lists are easily synchronized. Another attraction is the sharing of contact information with other applications such as Gmail, Google Talk, Messaging, Gallery (for sharing photos and videos), and so on, making the whole experience much more interactive and personalised.

Touching the Contacts icon on the home screen or in the Launcher displays all the contacts alphabetically in a scrolling list with each contact followed by a default phone number. While dragging the list up or down by simply sliding your finger, a tab appears briefly that displays the initial alphabet for the contact you are scrolling past and allows for quicker access. Touching a contact opens details such as home and office phone numbers and email addresses. A touch on any communication method can be used to start calling, or send an email or text message to the contact by using the listed details. Also the contact's address can be touched to view it on Google maps.

3.2 Adding and deleting

Adding and deleting contacts is straightforward and can be done through the Menu button. On using the New Contact option, different categories of contact information such as phone numbers and email addresses can be entered and labels such as Work and Mobile for a number can be which can be further customised. Touching a Picture Frame icon allows you to select a display photo to be used in various applications. Contact information can be imported and exported on a microSD card or SIM. Android allows for easy sharing of contacts too by simply emailing it to them in vCard format. Using Share in the Menu opens a Gmail compose message screen, with the contact attached as a vCard (.vcf) file. Further increasing usability, Android allows you to star contacts and then access them through the Favorites Tab, which

You can have a detailed contact book

also contains a list of the most frequently used names.

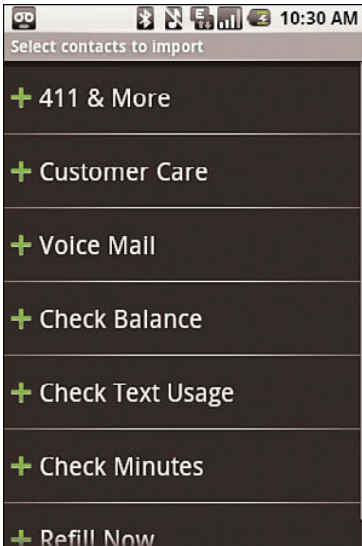
New contacts can also be added by synchronising the phone with not only multiple Google accounts, but also other accounts which support syncing such as Microsoft Exchange ActiveSync and so on. This is done through Accounts and Sync Setting where various accounts can be managed through the 'configure account sync and display' option and depending on how you configured the account, email, contacts and other information start syncing to your phone. On replying to or forwarding a message to an email account not presently in your list, the address will automatically be added as a contact and can be further edited easily. Multiple entries from

different accounts are merged into a single entry for easier reference. This process can be managed manually too by using Join that adds any extra information from a duplicate account to the previous entry and deletes the multiple entry. This does not join that data for the accounts themselves but merely presents it as a single contact. Erroneously joining information from different contacts can be corrected using the Separate Contact Information option. When a social networking account is added to the phone, you'll know what all your friends are up to and every time you check a friend's contact info, you'll not only see their name and number, but also their latest social network status and display pictures (smiles included).

Contact information can be edited comfortably and common features such as setting different ring tones for specific numbers or call diversion from a contact are present. Even though contact info has come from various sources: details that you provided manually, details from different accounts, consolidated information from duplicates and so on, editing is simple as Android groups information from each source in its own color coded, labeled section. Changes that you make to information from one source do not affect that of other sourced. For example, if any field from your Google account is edited, it will be synced to only that particular account on the web while

information from all your other accounts remains unchanged even if all accounts are configured to sync contacts.

While building up your list of contacts, you can use QuickContact for Android in many applications to start a chat, email or text message, to place a call, or to locate a contact. QuickContact for Android is a special icon that opens a bubble with options for quickly initiating a connection to a contact. Now that you have a considerably comprehensive list of contact details, you can make it more handy using options such as hiding the contacts that do not



Importing Contacts

have a contact number in case you use the list mostly to call people.

A contact can be deleted any time and an account removed except for the first Google account used to sign into the phone initially. If this account has to be deleted, all personal information from the phone has to be erased. Also while deleting contacts, names from a read-only account such as Facebook can't be erased. Instead a dialog box informs you that the contact will be hidden. However once you hide a contact in this way it may be a bit cumbersome to restore such a hidden contact, as that account must first be deleted from the phone and then added again.

3.3 Calendar

Now let's look into the calendar and appointment setting on Android. It's a pretty simple app, but definitely gets the job done. The Calendar on the phone works with the Google Calendar service for creating and managing events, meetings and appointments. Not only that it shows upcoming events pulled in from a corporate Exchanger server, but it can also pull information from Facebook and any other service you've set up on your phone that offers regular event scheduling. It can ring, vibrate or drop in a Notification ping on your phone exactly as far ahead of an event as you'd like. The very first time you configured the phone to a Google Account, and open the Calendar application, it displays any existing calendar events from your Google account on the web. Though

some calendar features, such as creating Calendars may only be available on the web, the phone version is also optimised and handy for daily use. The standard Android Calendar widget is a square but most manufacturers have their own customized versions of the same. Like HTC, whose widget includes three different size options: a single-row one that lists your next upcoming appointment, then two full-pages ones, in monthly grid or vertical agenda views that pop up with information when clicked. Motorola even lets you set a custom size, as well as have an option on which of your calendars are shown on its widget.

Calendars can be viewed by touching the Calendar icon on the Home Screen or in the Launcher and you can use a period of time like the Agenda view, Day view, Week view, Month view etc as per need and comfort. Agenda view will be a list of your events in chronological order with all-day and multiple events listed at the start of each day. Day view is like a tabular chart of the events of a day with one hour rows and all-day or multiple day events displayed at the top. Week view displays a chart of the events of a single week and Month view displays the most common chart of the entire month at a time. Calendar entries can be added by touching and holding an empty spot or an event in a day to open a menu with the option for creating a new event. If you have created or subscribed to more than one calendar by using Google calendar on the web, events from each calendar are displayed in a different color for easier reference.

To view more information about an event you can simply touch an event in the Agenda, Day or Week view or touch a day in the Month view followed by the event to open a summary of details. For events scheduled on your Google Calendar on the web, you can set or change whether or not you will attend the event by using the Attending option in the menu. Other attendees' status is displayed below your own. A plus symbol at the bottom allows you to add any event reminders and you can use edit or delete an event if the requisite permission is present. Using the 'new event' option in Menu you can add an



You can use Android's Calendar option to organise your life

Creating a new Event


event on your phone and make it appears on your Google calendar on the web. While filling in details for an event on your phone you can invite guests by entering the email addresses of everyone in the Guests field. If the invited person uses Google Calendar as well, they'll receive an invitation in Calendar by email. Similarly you can edit the event details in your calendar by using the Menu button or even in someone else's calendar if given permission. Deleting an event is done in the same way but if the event repeats, you are asked whether or not you want to erase just that occurrence, all future occurrences or all past and future occurrences along with the one at hand.

3.4 Reminders

A reminder can be set for an event, whether or not you created the event or have permission to edit its other details. On opening the event summary, the plus symbol at the end is used to a reminder for 10 minutes before the event and touching the minus symbol next to a set reminder deletes it. Touching the reminder time pops open a dialog box where the length of time before the event can be adjusted. Multiple reminders can added for any event and the Google calendar on the web can also be used to configure additional reminder settings. An event with a reminder set appears as an Upcoming Event in the Notifications area of the Status bar when the reminder time arrives. Dragging the Status bar opens the Notifications panel and touching the event notification opens the Calendar. On receiving the alert you can use Snooze or Dismiss as needed to delay event reminder or delete it all together from the list. Pressing the back key when viewing the Calendar Notifications keeps the reminders pending and the icon remains in the Status bar and the reminder stays in the Notifications panel.

Initially all calendars that you subscribe to or create in Google Calendar on the web are also displayed on your phone but they can be sorted out to show or hide on the phone and be synchronised easily. Calendar settings for displaying upcoming events and receiving their notifications can be modified as per your need through Settings in Menu. You can hide event

notifications for those events that you have declined invitations, configure event reminders to open an alert, select a different ringtone to sound when you receive an event reminder or change the default time before an event for reminders and so on.

You can set up your calendar-syncing accounts during your phone setup as well as in Accounts section of your Settings. If you want to change how those calendars are displayed or change their syncing status, hit Menu button from the main Calendar display, tap the More sub-menu and choose Calendars. All your calendar accounts will be listed and you can click on any one of them to manage or modify settings. In Android 2.2 and beyond, calendar options have been simplified significantly from previous versions and made much more user friendly. There's a button on the right of each Calendar listed under each account which can be used to change between settings like – not synced or visible, synced but not visible, or synced and visible. If you are wondering why Android allows you to sync a calendar but not have it visible, than it's probably for such accounts which are overcrowded with an array of events, possibly redundant or over-lapping with other calendars, so you might not want them to be shown always but nevertheless you'll still find an event to add to this database so that others subscribed to it are updated and so will want it to be synced. 

4 Email on the go

The Gmail application in Android is very closely hooked to the Android OS. On the surface, it's just another web-based email client. But it uses a relatively unique method of displaying messages, grouping them by threads, so that as you exchange email, they take up only one line in your inbox.

4.1 Reading Email

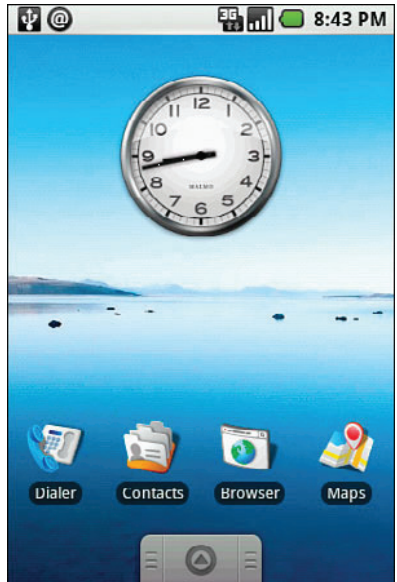
Reading email is quick and easy. Whenever you receive a new email, you get a nice little notification on the status bar to let you know.

Now, just like every other time you get a status bar notification in the upper left, you can tap the status bar and drag it down the screen to see your notifications. Note that, you can just tap Clear notifications to get rid of all the notifications, or you can tap the notification in question to pull up—well, whatever the notification is for. In the case of email, you just tap New email. Because Gmail stores email as conversations, you would find several unread conversations. If it's only one email, tapping the New email notification loads that specific email. If you have multiple unread conversations, you instead end up in your Inbox.

If you want to read all the mail in your Inbox that isn't new, just open the Application tab and tap on Gmail.

You can use the trackball or your finger to scroll through the list. If a conversation has an unread message, it's bold in the list, with a white background. Tap an email to open it. If it's a completely read conversation, you see the most recent message, along with a link to tap to see all the messages. If the conversation contains unread messages, they are all open for you to read.

If you receive a message with an attachment, you can preview most



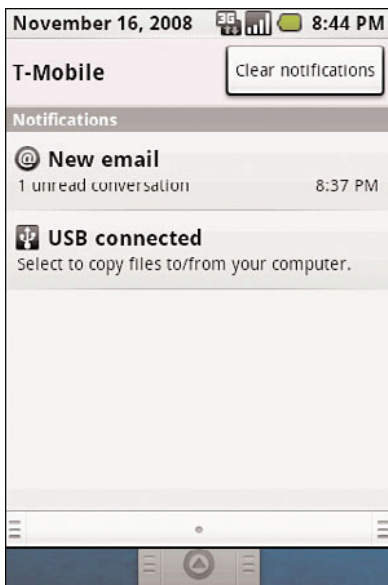
You'll receive alerts on the top left of the screen

Microsoft Office file types and images by tapping the Preview button. You can also save some attachment types, such as pictures and graphics, by tapping the Download button.

Whenever you read email, you can press the Back button to get back to your Inbox. Or you can press the Menu button and then tap More and Back to Inbox.

The menu has a few other options besides the More button:

- **Archive:** Archiving an email removes it from your Inbox without actually deleting it.
- **Add star:** Stars are just one way to organize your mailbox by adding an icon to emails that you want to flag for some reason.
- **Mark unread:** Marks the email, or the conversation, as unread.
- **Change labels:** This allows you to set one or more labels on a message. Labels will appear at the top of the message/conversation.
- **Delete:** Delete actually deletes a message or conversation.
- **More:** Gives you access to Back to Inbox, which we just mentioned, and Report spam, which is used to let Google know that a spam message sneaked through the Google spam filters. This option removes the spam from your Inbox and helps improve Google's spam filters.



Here you have one unread email

If you press the Menu button again and scroll to the bottom of the message, you'll find six more buttons. The first three are visible for every message in a conversation, and the last three are at the bottom of the conversation.

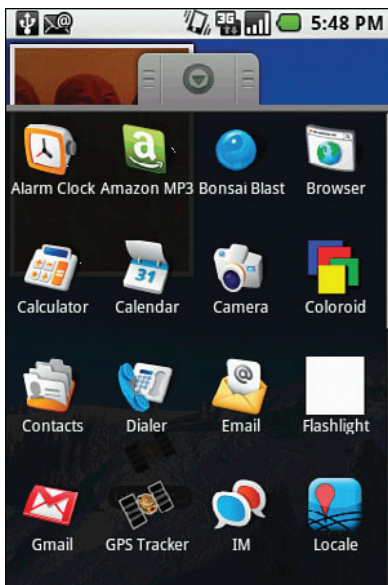
- **Reply:** This starts a new message in the conversation to the person who sent the message you're currently reading.
- **Reply to all:** This starts a new message in the conversation to all the people on the To or Cc line of the message you're currently reading.
- **Forward:** This starts a new message and requires you to provide the

address of whomever you want to forward an existing message to.

- **Archive:** Archiving a conversation removes it from your Inbox. The conversation is stored in the All Mail folder.
- **Labels:** You can add and remove labels for the conversation. A label is an easy way to categorise a message or conversation.
- **Delete:** This is just another way to delete the conversation. As you can see, the buttons on the email and conversation are pretty self-explanatory, so we'll go back to the Inbox and take a look at the other options you have there.

Now that you're in the Inbox, press the Menu button to examine the following options:

- **Refresh:** Although your phone should regularly update your list of messages for you on-the-fly, if it hasn't, you can tap this option to refresh the list.
- **Compose:** When you want to create a new message, this is what you tap.
 - **View labels:** You tap this option when you want to view the labels you have given to messages.
- **Search:** This is what Google is known for—searching for stuff or, in this case, your email. Tap this option, type in what you want to search for, and off you go.
- **Settings:** Tap this option to view your email settings.



Once you tap on the bottom of the screen, you get access to additional menus such as Gmail

4.2 Sending a new message

Even though reading email is fun and exciting, at some point you'll want to send email as well.

To send a new message, follow these steps:

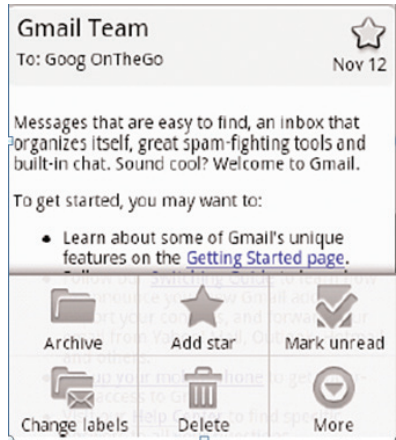
1. From your Inbox, press the Menu button.
2. Tap Compose to bring up the New Mail form.
3. Type an address in the To box. If the recipient is in your Contacts, the

phone automatically fills in the email address as you type. This process is known as autocomplete.

4. Tap in the Subject box, and type a subject.
5. Scroll down to the large, unmarked field and tap to start typing the body of your email.
6. Tap Send when you're done to send your message.

While you're composing a new message, you can access several options by pressing the Menu button:

- Send: This is just another way to send your message.
- Add Cc/Bcc: This adds the Cc and Bcc fields so that you can add recipients to those fields.
- Attach: If you have a picture stored on the phone, you can attach it to the message and send it.
- Edit subject: This option is helpful if you are replying to an existing message or forwarding an existing message. Tap this to change the subject.
- Discard: This sends the message to the trash immediately. Be careful with this option, because you receive no warning message.



The Gmail dashboard

4.3 Replying to or Forwarding a Message

These tasks are so easy, they don't even need steps. Simply open the message you want to reply to or forward. Tap a button at the bottom of the message to either Reply, Reply to all, or Forward the message. These actions do the following:

- Reply: This creates a new message to the person who sent you the original message.
- Reply to all: This creates a new message to the person who sent you the original message and anyone else who received the message because their name was on the To or Cc line.
- Forward: This sends the existing message to another person. You can also add a comment to the message before you send it.

4.4 Archiving an Email

We mentioned both archiving and deleting. Both actions remove an email from your Inbox. However, that's where the similarities end. Unlike most other email clients, Gmail doesn't have folders, so to speak. The Inbox is where all received mail goes automatically, unless it has been marked as spam.

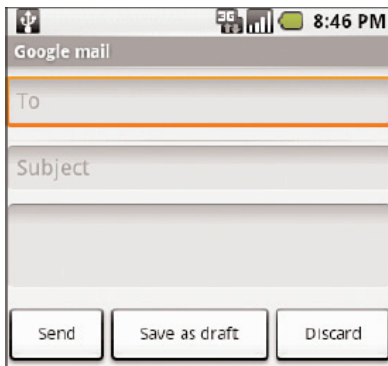
The Inbox stores all mail that hasn't been trashed, marked as spam, or archived. The All Mail folder is all email messages that haven't been marked as spam or trashed. So it includes any mail that has been archived. It also includes all messages you've sent, as well as all messages that are currently in draft form.

The Trash folder stores all mail that you've deleted. When you delete (or trash) a message, it is stored in the Trash folder for 30 days. On the 31st day, it's deleted forever. If there's any chance that you might need a message later, do not send it to the trash.

So what is the Archive? Archiving an email simply removes it from the Inbox. If you like the peace of mind of looking at a clean, organised Inbox with just a few items, you'll probably archive items often. However, because Gmail offers you such a great amount of storage, there is no real reason to archive other than organization. Archived items can still be found in the All Mail folder.

4.5 Labels

Because Google stores all the unarchived mail in one giant Inbox, as soon as you get more than a handful of messages, you'll probably sometimes need to search your Inbox for specific messages. Although this works quite well most of the time, sometimes it's more convenient to set aside certain messages for easy retrieval. That's one of the primary functions of labels. They help you organize your mail within your Inbox or within the All Mail folder. While you're viewing a message, press the Menu button, and then tap View Labels to see the available labels. Next tap the label you want to apply. You can apply multiple labels to a single message.



Compose your email with a couple of taps

You can also add labels by tapping and holding a single message and choosing Change labels from the popup menu. Although applying labels is quite easy, there is no way to create new labels on your phone. To do that, open www.gmail.com on your computer and sign in with the same account you're using on your phone. From there, you can edit labels or create new ones.

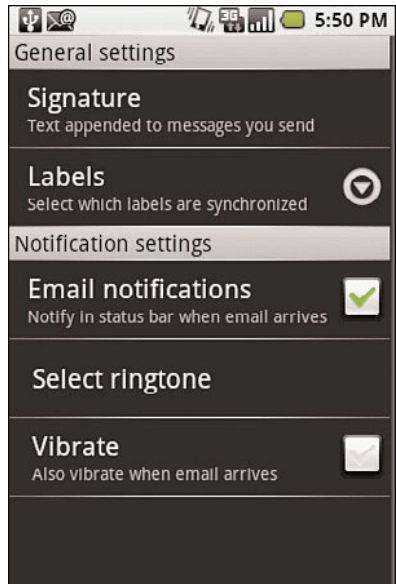
4.5.1 Automatically apply labels to incoming email

Although it's useful to apply labels to email you have received, it isn't very efficient. The following steps show you how you can automatically apply labels to new messages as you receive them:

1. On your computer, open Gmail and click the Edit labels option on the left side of the screen.
 2. Click the word Filters at the top of the screen.
 3. Click Create a new filter.
 4. Specify the criteria you want, such as From: hanu.p@gmail.com or Has the words: "Facebook"
 5. Click Test Search to verify that the filter captures the messages you intend. If not, continue editing the criteria.
 6. Click Next Step and choose the action you want to happen when you receive a filtered message. You can take a variety of actions, including applying a label.
 7. Choose the label you'd like to apply, and then click Create Filter.
- Set your labels from the Settings page

Within Gmail, you can see only

email that has this label, giving your Inbox the appearance of folders without actually having them. You might think that sounds rather silly, and that folders are far more convenient, but consider this: Unless you make a copy, thus doubling the size of the message, it can't exist in two folders. But you can put as many labels as you want on a message.



4.6 Customizing Gmail Settings

Let's go back to the Inbox on the phone. Press the Menu button and tap Settings. You can configure two types of options: General settings and Notification settings.

4.6.1 General Settings

In the General settings section, you have the following options:

- **Signature:** A signature is a blurb of text that appears at the bottom of your email messages. You can use only text. Images are not supported. The signature you specify here is specific to your phone, so you can set up something to show that you're typing on a tiny keyboard and might make some typographic errors. Or you can brag about your new phone.
- **Labels:** As we just showed you, labels are a powerful little feature. Perhaps you want to receive only certain emails on your phone, and you've set up a filter to automatically apply a certain label to emails. Here you can select synchronisation settings for any label. This will affect what messages get downloaded to your phone, which can be very useful if you happen to have a data plan that limits the amount of data you are able to download. Currently, for your Inbox, you have two options: Sync recent or Sync all, while all other labels have a third option of blank.

To change the settings for each label, just tap the label. You can choose from the following options:

- **Sync all:** This option simply means that all items with this label will be synchronised with your phone.
- **Sync recent:** This option synchronises all unread items.
- **Blank:** If the synchronisation has no option listed, none of the items will be synchronised.

4.6.2 Notification settings

You can configure several different notification options:

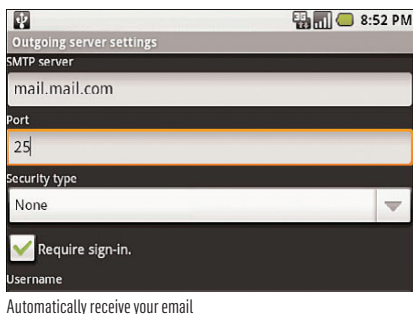
- **Email notifications:** By default, your phone notifies you with an icon in the status bar every time you get a new message. Tap this option to deselect it if you don't want this to happen.
- **Select ringtone:** Tap this option to choose a ringtone to play whenever you get a new message.
- **Vibrate:** If this option is checked, your phone vibrates whenever you get a new message.

4.7 Connecting to other email accounts

Although Gmail is a great application, people have other email accounts as well. You'll be glad to know that you can hook up to any POP3/IMAP4 mail server. Although some web-based mail providers have POP3/IMAP4 access options, not all of them do. Others have the option, but require you to pay extra for it or use only approved email clients. Be sure to check with your mail provider if you aren't sure or if the steps provided don't seem to work for you. The setup is quick and easy, and you can add several other email accounts with ease:

1. Tap the Application tab, and then tap Email.
2. If this is your first non-Google email account, tap Next and skip to step 5. Otherwise, press the Menu button, and then tap Accounts.
3. Enter the email address and password for your account. Tap Next.
4. Your phone attempts to retrieve the settings for your email account. If this fails (it often does, because not all servers support downloading these settings automatically), continue with the next step. Otherwise, skip to step 8.
5. Tap the button for the account type you want to add.
6. Enter your incoming mail server settings. You need to obtain these from your email provider.
7. Tap Next. Your phone validates your incoming email settings.
8. Enter your outgoing server settings, and tap Next.
9. When your account is validated, you're asked for some basic information, such as how often you'd like your phone to check for email and whether you want to be notified when you receive new messages. Tap Next when you're done.
10. Enter a name for your account if you'd like. You don't need to enter a name, but it can be helpful if you have multiple accounts.
11. Enter your name. This is the name that is displayed whenever someone else reads your email. Tap Save, and you're done.

You can now send and receive email messages on your phone. You can create multiple accounts from different providers.




4.7.1 Switching between multiple accounts

Assuming that you have multiple POP3/IMAP accounts defined, simply follow these steps to switch between them:

1. Tap the Application tab, and then tap Email.
2. Press the Menu button.
3. Tap Accounts.
4. Tap the account you want to use.

4.7.2 Removing an account

If you are ready to get rid of one of your POP3/IMAP4 accounts, doing so is quite easy:

1. Tap the Application tab, and then tap Email.
2. Press the Menu button.
3. Tap Accounts.
4. In your list of accounts, tap and hold the account you'd like to take off your phone.
5. Tap Remove account. If you're sure, tap OK. 

5 Phone settings

You use the Settings application to configure how your phone looks, sounds, communicates, protects your privacy, and operates in many other ways.

5.1 Opening Settings

The Settings application contains most of the tools for customising and configuring your phone.

- Press Home, press Menu, and tap on Settings.
- Tap the Settings icon on the Home screen or in the Launcher.

5.2 Wireless and networks

Use Wireless & Network settings to configure and manage connections to networks and devices via Wi-Fi, Bluetooth, and mobile networks. You also use Wireless & Network settings to configure connections between your phone and virtual private networks (VPNs), to connect your computer to the Internet using your phone's mobile data connection, and to turn off all radios with Airplane mode.

- Airplane mode: Check to turn off all the phone's radios that transmit voice or data. When checked, also disables the Call settings
- Wi-Fi: Check to turn on Wi-Fi so you can connect to Wi-Fi networks.
- Bluetooth: Check to turn on Bluetooth so you can connect to Bluetooth devices.
- NFC: If your phone supports Near-Field Communication, check to allow applications to use NFC to read NFC tags and to make NFC tags on your phone readable by other NFC devices. Uncheck this setting to disable NFC on your phone. You work with NFC tags with the Tags application.

5.2.1 Wi-Fi settings screen

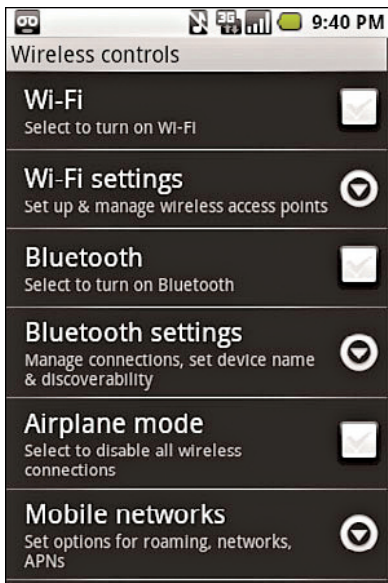
In addition to the settings described in this section, you can press Menu



Settings lets you tweak the phone to your preference

on this screen and tap Advanced to configure Advanced Wi-Fi settings.

- **Wi-Fi:** Check to turn on Wi-Fi so you can connect to Wi-Fi networks. When connected to a network, displays the network's name.
- **Network notification:** Check to receive a notification when an open Wi-Fi network becomes available.
- **Wi-Fi networks:** Displays a list of Wi-Fi networks you've previously configured and those detected when the phone last scanned for Wi-Fi networks.
- **Add Wi-Fi network:** Opens a dialog where you can add a Wi-Fi network by entering its SSID (the name it broadcasts) and security type.



Use Wi-Fi settings to manage access points

5.2.2 Advanced Wi-Fi settings screen

- **Wi-Fi sleep policy:** Opens a dialog where you can set whether and when the Wi-Fi radio disconnects. Disabling sleep uses more battery power.
- **MAC address:** The Media Access Control (MAC) address of your phone when connecting to Wi-Fi networks.
- **IP address:** The Internet Protocol (IP) address assigned to the phone by the Wi-Fi network you are connected to (unless you used the IP settings to assign it a static IP address).
- **IP settings:** If you check USE STATIC IP, you can use the IP settings to enter an IP address and other network settings for your phone manually, rather than using the DHCP protocol to obtain network settings from the Wi-Fi network itself.

5.2.3 Bluetooth settings screen

- **Bluetooth:** Check to turn on Bluetooth so you can connect to Bluetooth devices.
- **Device name:** Opens a dialog where you can give your phone a name that

is visible on some Bluetooth devices when you pair them. The current name is displayed.

- Discoverable: Check to make your phone discoverable by other Bluetooth devices for 120 seconds.
- Scan for devices: Touch to search for and display information about nearby Bluetooth devices.
- Bluetooth devices: Displays a list of Bluetooth devices that you've previously configured and those detected when the phone last scanned for Bluetooth devices.

5.2.4 Tethering & portable hotspot settings screen

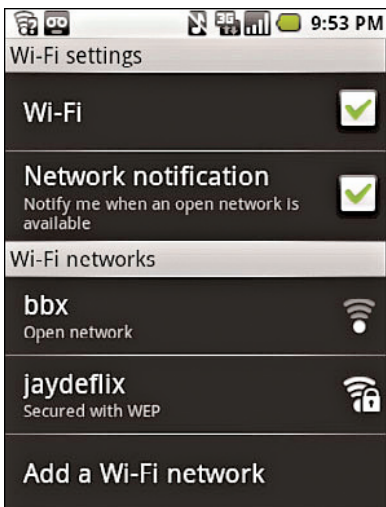
- USB tethering: Check to share your phone's mobile network data connection with your computer, via a USB connection.
- Portable Wi-Fi hotspot: Check to share your phone's mobile network data connection as a portable Wi-Fi hotspot.
- Portable Wi-Fi hotspot settings: Opens a screen with settings to turn the hotspot on and off and to set the its SSID (its broadcast name) and security.

5.2.5 VPN settings screen

- Add VPN: Opens a screen that prompts you to select the type of VPN to add. You are then prompted for VPN configuration details.
- VPNs: The list of VPNs that you've previously configured.

5.2.6 Mobile networks settings screen

- Data enabled: Uncheck to prevent your phone from transmitting data on any mobile network. This is useful if you are traveling in an area where you do not have a mobile data plan and want to avoid charges for data use on local carriers' mobile networks. Unchecking this setting does not prevent your phone from transmitting data on other



Select the network with the best signal

wireless networks, such as Wi-Fi or Bluetooth.

- **Data roaming:** Uncheck to prevent your phone from transmitting data on other carriers' mobile networks when you can't access your own carrier's mobile networks.
- **Data usage:** Only available if your carrier enforces a mobile network data use policy. Displays the amount of data you've transmitted over the mobile network in the current period, the data threshold (the amount of data you can transmit before the policy is enforced), and the time when the next period starts. If you touch this setting, the Data Usage screen opens, with more details about your mobile network data use, the period in which it's measured, and the way in which the carrier will enforce the policy if you exceed the data threshold for the period. Contact your carrier for more information about its mobile network data use policy.
- **Access Point Names:** Opens the APNs screen, where you can select mobile access point configurations; or press Menu to add a new APN. Consult your carrier about how to use the tools on this screen.
- **Use only 2G networks:** Check to obtain slightly better battery life, by preventing your phone from connecting to higher-speed networks.



Configuring is easy

5.3 Call settings

Use Call settings to configure phone call settings, such as call forwarding, call waiting, and other special features offered by your carrier. You can also use Call settings to configure the phone so that it can place outgoing calls only to a fixed set of phone numbers.

5.3.1 Call settings screen

- **Voicemail settings:** If you are using your carrier's voicemail service, opens

a dialog where you can enter the phone number to use for listening to and managing your voicemail. You can enter a comma (,) to insert a pause into the number—for example, to add a password after the phone number

- **Call forwarding:** Opens a screen where you can configure how your calls are forwarded when you're on the phone, when you don't answer, and so on.

5.3.2 Additional settings

- **Call waiting:** Check to see and respond to new calls when you're already on a call.

5.4 Sound settings

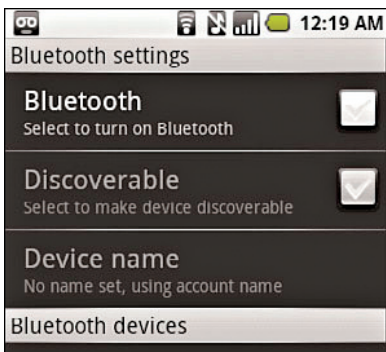
Use the Sound settings to configure how and at what volume the phone rings, vibrates, or alerts you in other ways when you receive a call, you receive a notification, or an alarm sounds. You also use these settings to set the volume for music or other media with audio, and some related settings.

- **Silent mode:** Check to silence all sounds (including call and notification ringtones) except the audio from music, videos, and other media and any alarms you have set. (You must silence media and alarms in their own applications.)

- **Vibrate:** Opens a dialog where you can configure when you want the phone to vibrate when you receive a phone call or notification:

Always, never, only when the phone is in Silent mode, or only when the phone is not in Silent mode.

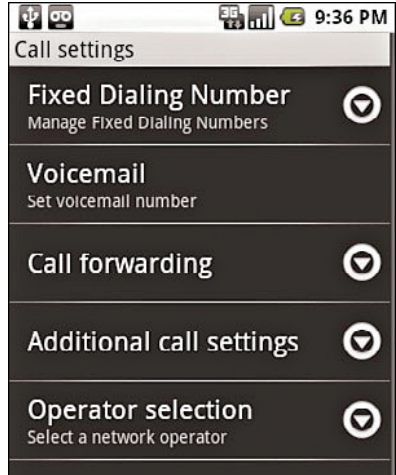
- **Volume:** Opens a dialog where you can set the volume of ringtones that sound when you receive a phone call or notification, media (music, videos, an so on), and alarms. If you uncheck the option to use the same volume for both calls and notifications, you can set the notification ringtone volume independently.
- **Phone Ringtone:** Opens a dialog where you can select the ringtone to sound when you receive a phone call. Touch a ringtone to listen to it. You



Consider a Bluetooth headset

can use some media applications to add a song to this list.

- **Phone Vibrate:** Opens a dialog where you can set the phone to vibrate whenever you receive an incoming call, only when the phone is in Silent mode, or never.
- **Notification ringtone:** Opens a dialog where you can select the ringtone to sound when you receive a notification. Touch a ringtone to listen to it.
- **Pulse notification light:** On phones that pulse their Trackball light or other notification light when you receive a notification, check to pulse the light every few seconds when you have new notifications. Uncheck to pulse the light just once for each new notification when it arrives.
- **Audible touch tones:** Check to hear tones when you use Phone to dial a number.
- **Audible selection:** Check to play a sound when you touch buttons, icons, and other onscreen items that react to your touch.
- **Screen lock sounds:** Check to play a sound when the screen is locked or unlocked.
- **Haptic feedback:** Check to have the phone vibrate briefly when you touch soft buttons and perform other actions.



Use call settings to tweak

5.5 Display settings

Use the Display settings to configure brightness and other screen settings.

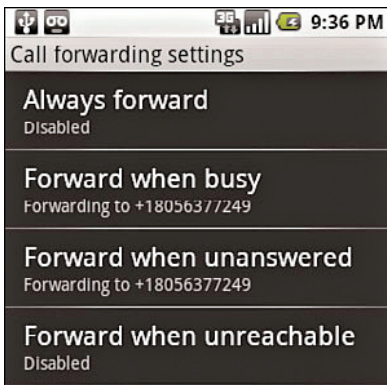
- **Brightness:** Opens a dialog for adjusting the brightness of the screen. You can check Automatic brightness to set the phone to adjust the brightness automatically, using the phone's built-in light sensor. Or uncheck that option to use the slider to set a brightness level you want at all times when using the phone. For the longest battery life between charges, use the dimmest comfortable brightness.
- **Auto-rotate screen:** Check to automatically switch the orientation of the screen as you turn the phone sideways or upright.

- **Animation:** Opens a dialog where you can set whether you want to enjoy animated transitions for some effects (such as opening menus), for all supported effects (including when navigating from screen to screen), or to enjoy a phone without any optional animation effects (this setting does not control animation in all applications).
- **Screen timeout:** Opens a dialog where you can set how long to wait after you touch the screen or press a button before the screen darkens. For the longest battery life between charges, use the shortest convenient timeout.

5.6 Location and security settings

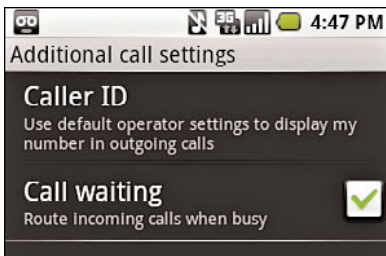
Use the Location & Security settings to set your preferences for using and sharing your location when your search for information and use location-aware applications, such as Maps. You can also configure settings that help secure your phone and its data.

- **Use wireless networks:** Check to use information from Wi-Fi and mobile networks to determine your approximate location, for use in Maps, when you search, and so on. When you check this option, you're asked whether you consent to sharing your location anonymously with Google's location service.
- **Use GPS satellites:** Check to use your phone's global positioning system (GPS) satellite receiver to pinpoint your location to within an accuracy as close as several metres ("street level"). Actual GPS accuracy depends on a clear view of the sky and other factors.
- **Set up screen lock:** Tap to configure your phone to require a pattern, PIN, or password to unlock your screen.
- **Set unlock pattern:** Opens a set of screens that guide you through drawing a screen unlock pattern.
- **Change unlock pattern:** When an unlock pattern is set, opens a set of screens you can use to change the unlock pattern.
- **Use visible pattern:** When an unlock pattern is set, check to draw lines between points in the unlock pattern you draw.



You can automatically forward your calls when busy

- Use tactile feedback: When you have configured a screen lock, check to have the phone vibrate briefly as you touch each dot when you draw an unlock pattern or as you enter the unlock PIN or password.
- Set unlock PIN: Opens a set of screens for setting a numeric PIN you must enter to unlock your screen.
- Change unlock PIN: When a screen lock PIN is set, opens a set of screens you can use to change PIN.
- Set unlock password: Opens a set of screens for setting a password you must enter to unlock your screen.
- Change unlock password: When a screen lock password is set, opens a set of screens you can use to change password.
- Turn off screen lock: Touch to stop requiring a pattern, PIN, or password to unlock your screen. This setting is not visible unless you have configured a screen unlock pattern, PIN, or password.
- Set up SIM card lock: Opens a screen where you can configure the phone to require entering the SIM PIN to use the phone, and where you can change the SIM PIN.
- Visible passwords: Check to briefly show each character of passwords as you enter them, so that you can see what you enter.
- Select device administrators: Opens a screen with a list of the applications you have authorized to be device administrators for your phone. This is typically an email, calendar, or other enterprise application that you granted this authority to, when you added an account hosted by an enterprise service that requires the ability to implement security policies on the devices that connect to it. Touch an application in this list to disable its authority to be a device administrator; if you do, the account you added will typically lose some functionality in its applications, such as the ability to sync new email or calendar events to your phone, until you restore the application's authority as a device administrator. Applications whose device administration authority you disable in this way, but that have accounts that require them to be a device administrators, typically notify you how to restore their authority when you try to use them, unless



you delete those accounts.

- **Use secure credentials:** Check to allow applications to access your phone's encrypted store of secure certificates and related passwords and other credentials. You use credential storage to establish some kinds of VPN and Wi-Fi connections. If you have not set a password for the credential storage, this setting is dimmed.
- **Install from SD card:** If your phone uses a removable SD card to store user files, touch to install a secure certificate from an SD card.
- **Install from USB storage:** If your phone uses internal USB storage for user files, touch to install a secure certificate from USB storage.
- **Set password:** Opens a dialog where you can set or change the password for your secure credential storage. Your password must have at least 8 characters.
- **Clear storage:** Deletes all secure certificates and related credentials and erases the secure storage's own password, after prompting you to confirm that you want to do this.

5.7 Applications settings

You use the Applications settings to view details about the applications installed on your phone, to manage their data, to force them to stop if they misbehave, and to set whether you want to permit installation of applications that you obtain from web sites and email.



Set your ringtones and volume in Sound settings

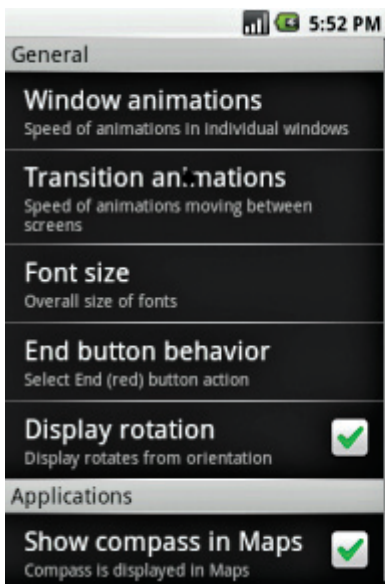
5.7.1 Applications settings screen

- **Unknown sources:** Check to permit installation of applications that you obtain from web sites, email, or other locations other than Android Market. To protect your phone and personal data, download applications only from trusted sources, such as Android Market.
- **Manage applications:** Opens a list of all the applications and other software installed on your phone, along with their sizes and tools for managing them.

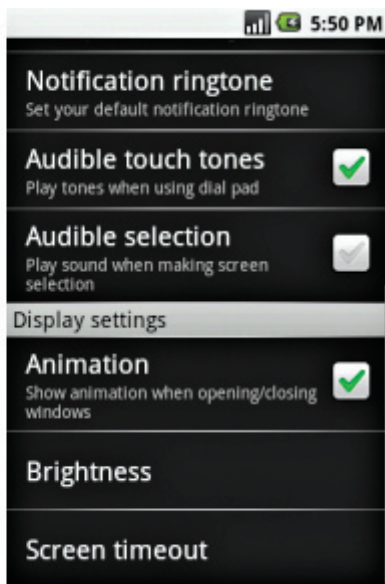
- **Running services:** Opens a list of applications, processes, and services, that are currently running or are cached.
- **Storage use:** Opens a list of all applications on your phone with information about the storage they use.
- **Battery use:** Opens a list of the applications that have used battery power since you last charged your phone.

5.7.2 Development screen

The Development screen contains settings that are useful for developing Android applications. For full information, including documentation of the Android APIs and development tools, see the Android developer web site (<http://developer.android.com>).



Android lets you change font sizes as well as animated transitions



- **USB debugging:** Check to permit debugging tools on a computer to communicate with your phone via a USB connection.
- **Stay awake:** Check to prevent the screen from dimming and locking when the phone is connected to a charger or to a USB device that provides power. Don't use this setting with a static image on the phone for long

periods of time, or the screen may be marked with that image.

- **Allow mock locations:** Check to permit a development tool on a computer to control where the phone believes it is located, rather than using the phone's own internal tools for this purpose.

5.8 Accounts & sync settings

Use the Accounts & Sync settings to add, remove, and manage your Google Accounts and other accounts. You also use these settings to control how and whether applications send, receive, and sync data on their own schedules, and whether applications can synchronize user data automatically.

5.8.1 Accounts & sync settings screen

- **Background data:** Check to permit applications to synchronize data in the background, whether or not you are actively working in them. Unchecking this setting can save battery power and lowers (but does not eliminate) data use.
- **Auto-sync:** Check to permit applications to synchronize data on their own schedule. If you uncheck this setting, you must touch an account in the list on this screen, press Menu , and touch Sync now to synchronize data for that account. Synchronizing data automatically is disabled if Background data is unchecked. In that case, the Auto-sync checkbox is dimmed.
- **Manage accounts:** The rest of this screen lists the Google Accounts and other accounts you've added to the phone.
If you touch an account in this screen, its account screen opens.

5.8.2 Account screen

This screen contains different options, depending on the kind of account. For Google Accounts, it lists the kinds of data you can synchronize to the phone, with checkboxes so you can turn synchronizing on and off for each kind. You can also press Menu and touch Sync now to synchronize data. Touch the Remove account button to remove the account along with all its data (contacts, mail, settings, and so on). You can't remove the first Google Account you added to your phone except by resetting your phone to the factory defaults and erasing all of your user data.

5.9 Privacy settings

You use the Privacy settings to manage your personal information.

- **Back up my data:** Check to back up some of your personal data to Google

servers, with your Google Account. If you replace your phone, you can restore the data you've backed up, the first time you sign in with your Google Account. If you check this option, a wide variety of your personal data is backed up, including your Wi-Fi passwords, Browser bookmarks, a list of the applications you've installed, the words you've added to the dictionary used by the onscreen keyboard, and most of the settings that you configure with the Settings application. Some third-party applications may also take advantage of this feature, so you can restore your data if you reinstall an application. If you uncheck this option, you stop backing up your data to your account, and any existing backups are deleted from Google servers.

- **Automatic restore:** Check this option to restore your settings and other data when you install an application, if you installed and used it previously on this phone or on another phone, where you signed in with the same Google Account and were backing up your settings.
- **Factory data reset:** Opens a dialog where you can erase all of your personal data from internal phone storage, including information about your Google Account, any other accounts, your system and application settings, and any downloaded applications. Resetting the phone does not erase any system software updates you've downloaded. Also includes a checkbox to erase your phone's USB storage or SD card (depending on your model of phone), which can contain files you've downloaded or copied there, such as music or photos. If you reset the phone in this way, the next time you turn on your phone you're prompted to reenter the same kind of information as when you first started Android.

5.10 Storage settings

Use the Storage settings to monitor the used and available space on your phone's internal storage and on your phone's USB storage or SD card (depending on your model of phone). You can also view and manage the storage used by applications and where they are stored. You can view, reopen, and delete files you've downloaded with Browser, Gmail, or Email with the Downloads application.

- **SD card or USB storage:** Lists the amount of space on your phone's USB storage or SD card and the amount you have used to store photos, videos, music, downloads, and other files
- **Unmount SD card:** Unmounts the SD card from your phone so that you can safely remove it when the phone is on. This setting is dimmed if there

is no SD card installed, if you have already unmounted it, or if you have mounted the SD card on your computer. There is no equivalent setting for phones with USB storage.

- **Erase USB storage or Erase SD card:** Permanently erases everything on your phone's USB storage or SD card and prepares it for use with your phone.
- **Internal storage:** The amount of internal phone storage used by the operating system, its components, applications (including those you downloaded there), and their permanent and temporary data.

5.11 Language and keyboard settings

Use the Language & Keyboard settings to select the language for the text on your phone and for configuring the onscreen keyboard, including words that you've added to its dictionary.

5.11.1 Language and keyboard screen

- **Select language:** Opens the Language screen, where you can select the language to use for the text on your phone.
- **User dictionary:** Opens a list of the words you've added to the dictionary. Touch a word to edit or delete it. Press Menu and touch Add to add a word.

5.11.2 Android Keyboard settings screen

The Android Keyboard settings apply to the onscreen keyboard that is included with your phone. The correction and capitalisation features affect only the English version of the keyboard.

- **Vibrate on keypress:** Check to have the phone vibrate briefly each time you touch a key on the on-screen keyboard.
- **Sound on keypress:** Check to play a brief sound each time you touch a key on the on-screen keyboard.
- **Popup on keypress:** Uncheck to prevent a larger image of each key from displaying above the key (out from under your finger) when you touch it.
- **Touch to correct words:** Uncheck to turn off the feature that underlines a word in a text field if you touch the word and the keyboard has suggestions for other words you may have intended.
- **Auto-capitalisation:** Check to have the on-screen keyboard automatically capitalize the first letter of the first word after a period, the first word in a text field, and each word in name fields.
- **Show settings key:** Opens a dialog where you can set whether you want

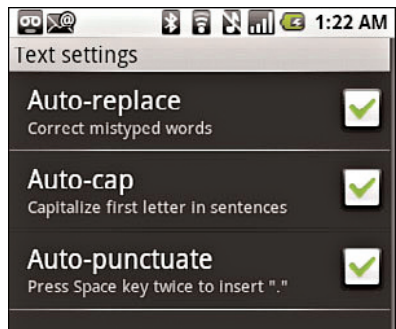
the keyboard to decide automatically whether to include the Settings key on the keyboard (it does this only if you have more than one keyboard or other input method installed), or whether you want always to show the Settings key or always to hide it.

- **Voice input:** Opens a dialog where you can turn voice input off or set on which on-screen keyboard you want the voice-input Microphone key.
- **Input languages:** Opens the Input Languages screen, where you can check the languages you want to have available when using the on-screen keyboard.
- **Quick fixes:** Check to automatically correct some common misspellings as you type.
- **Show suggestions:** Check to show suggested words in a strip above the on-screen keyboard as you type.
- **Auto-complete:** Check to automatically enter a suggested word, highlighted in the strip above the keyboard, when you enter a space or punctuation.

5.11.3 Device keyboard settings screen

This settings screen is available only if your phone has a physical keyboard.

- **Auto-replace:** Check to correct misspelled words as you type.
- **Auto-cap:** Check to capitalise the first letter of the first word in sentences.
- **Auto-punctuate:** Check to insert a period (.) when you press the Space key twice in a row.



Text settings will help reduce typos

5.12 Voice input & output settings

You use the Voice Input & Output settings to configure the Android voice input feature, and the text-to-speech synthesiser, for applications that can take advantage of it, such as TalkBack.

5.12.1 Google Voice Recognition settings screen

- **Language:** Opens a screen where you can set the language you use when entering text by speaking.

- **SafeSearch:** Opens a dialog where you can set whether you want Google SafeSearch filtering to block some results when you use Google search by voice: Block no search results (off), only explicit or offensive images (moderate), or both explicit or offensive text and images (strict).
- **Block offensive words:** When unchecked, Google voice recognition will recognize and transcribe words many people consider offensive, when you enter text by speaking. When checked, Google voice recognition replaces those words in transcriptions with a placeholder comprised of hash symbols (#).

5.12.2 Text-to-Speech settings screen

If you don't have speech synthesizer data installed, only the Install voice data setting is available.

- **Listen to an example:** Plays a brief sample of the speech synthesizer, using your current settings.
- **Always use my settings:** Check to use the settings on this screen in place of speech synthesizer settings available in other applications.
- **Default engine:** Opens a dialog where you can set the text-to-speech application you want to use, if you have more than one installed.
- **Install voice data:** If your phone does not have speech synthesizer data installed, connects to Android Market and guides you through the process of downloading and installing the data. This setting is not available if the data is already installed.
- **Speech rate:** Opens a dialog where you can select how quickly you want the synthesizer to speak.
- **Language:** Opens a dialog where you can select the language of the text you want the synthesizer to read. This is particularly useful in combination with the Always Use My Settings setting, to ensure that text is spoken correctly in a variety of applications.
- **Engines:** Lists the text-to-speech engines installed on your phone. Touch one to view or change its settings.

5.13 Accessibility settings


You use the Accessibility settings to configure any accessibility plug-ins you have installed on your phone.

- **Accessibility:** Check to enable all installed accessibility plug-ins.
- **KickBack:** Check to have the phone vibrate briefly as feedback as you navigate the user interface, press buttons, and so on.

- **TalkBack:** Check to have an installed speech synthesizer speak the labels or names of items as you navigate the phone's user interface.
- **SoundBack:** Check to play a sound as you navigate the phone's user interface.
- **Power button ends call:** Check to cause pressing the power button to end a phone call, rather than turning the screen on and off.

5.14 Dock settings

If your phone supports a car dock or desktop dock that you own, you can use the Dock settings, to set your preferences for how the phone and the dock interact.

- **Audio:** Available when the phone is inserted in a car dock or desktop dock. For a car dock, opens a dialog where you can set whether music and other media audio play through the dock speaker and whether to use the dock as a speakerphone. For a desktop dock, opens a dialog where you can set whether music and other audio play via the audio line out port. Your settings apply only to the dock you are using; you can have different settings for different docks.
- **Dock insertion sound:** Check to play a sound when inserting or removing the phone from a dock. 

6 Photos and Videos

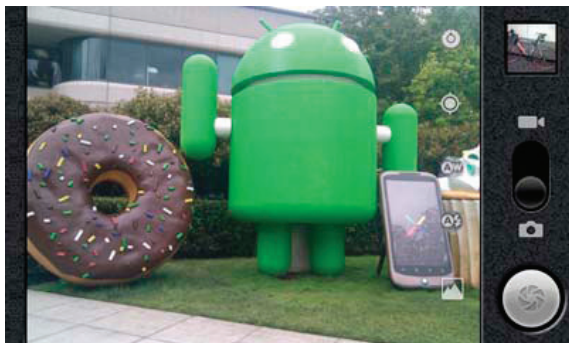
Point, shoot and save. Go ahead, explore the camera on your Android and have some fun! Though the camera itself will be different in capabilities on different Android phone but the software powering it will have a few common basic features apart from some useful modifications across the range of handsets available today. Some Android phones might have a dedicated Camera button, most often on the lower-right side, so that it feels like the traditional shutter button of a camera when you hold your phone sideways. In absence of a button on the phone itself, you can simply use the Camera shortcut on your Home Screen. On activating the camera, your screen is a combination of a control panel, generally on the right side, and a viewfinder on the left. In this section we'll see how the Camera app usually works in your Android phone and how you can better organise the Gallery on your phone.

6.1 More on the camera

Your camera will probably have automatic settings that you can use to take quick point-and-shoot photographs and videos along with a number of ways to control exposure settings or may even offer you special effects such as shooting negatives. Android offers a handful of settings you can change with each shot. This appears as white icons overlaid on the image preview. Pressing an icon opens a translucent strip and a small menu pops out for the option you picked. To change the focus mode- automatic or infinity, there is a button on the very top to work with. For most photographers on a phone camera, Automatic will serve just fine but you play with Infinity to see what difference it makes. Below this is a GPS icon that changes accordingly if the phone tries to collect location data to embed in each picture and next to it will be a button to change the white balance for your images. So you can allow the camera's sensors to either adjust automatically or compensate manually for some specific kinds of lightings. Through regular use you'll see that outdoor shooting in Automatic settings is not a problem but while clicking indoors you might see unnecessary tints of blue or orange and in such cases manually adjusting the white balance settings will prove to be a big help.

If your handset has a flash for the camera, its settings will be near the bottom of the view finder when you are using your camera and you can set it to auto, on or off. Also near the bottom will be a zoom setting that can be adjusted

with a sliding bar to get in closer or move out of your shot. On rotating your camera to change between landscape-style and vertical-portrait style shots your settings screen will automatically rotate and move to the bottom. On some Android



You can choose between camera or camcorder from the button on the right

phones you can even try out a half-press on the shutter to focus your lens and see what the final resulting shot will look like. This may work on some phones but a lot of manufacturers like HTC do not support such features. If your camera does have a dedicated button for the camera, you might be able to press it until you feel a tiny bit of resistance and no further, allowing you to perfectly time a shot- you have already focused and lined up your shot and all you have to do is release the button at the exact moment. Depending on your phone, there may be many more features to explore. For instance, your HTC may have the Sense interface, where the camera controls are in mostly the same places the standard Android setup but some extra unique tools are added. You can change the focus from the center and shift it elsewhere by simply tapping on a set of points in a shot on an HTC or dragging the focus brackets on a Motorola.

6.2 Videos

Similarly video isn't all that different from clicking pictures on your Android. On most phones the application will actually be the same only and just flicking the screen allows you to toggle between camera and video and the zoom control becomes a video quality setting. On some phones there may be a separate app to launch a video recording called Camcorder, which serves the same function as opening the camera and changing the mode to video. Display options will be available just like the Camera for adjusting lighting, balance and so on, and you can record or stop by pressing the same control button. Extra features are added to the platform by various manufacturers like the Motorola Scenes offering through which you can

adjust the microphone levels for windy outdoor settings.

Now that you are somewhat familiar with the camera and video apps on your phone, let us look into ways to store and share your perfect shots on the Android. If your device shows you a preview for a few seconds of the captured image immediately after clicking, you can tap on one of the on-screen buttons to keep it there or quickly share it through the web or through one of your apps. You can use the Gallery on your phone to view pictures and play videos that you've taken with Camera, downloaded or copied onto your memory card. You can also view pictures in a Picasa web album, send them to friends via email or messaging or upload them on your favorites sites, and perform basic editing tasks directly on your pictures and set them as your wallpaper or assign them as contact pictures.

You can open the Gallery through the icon on the Home Screen or in the

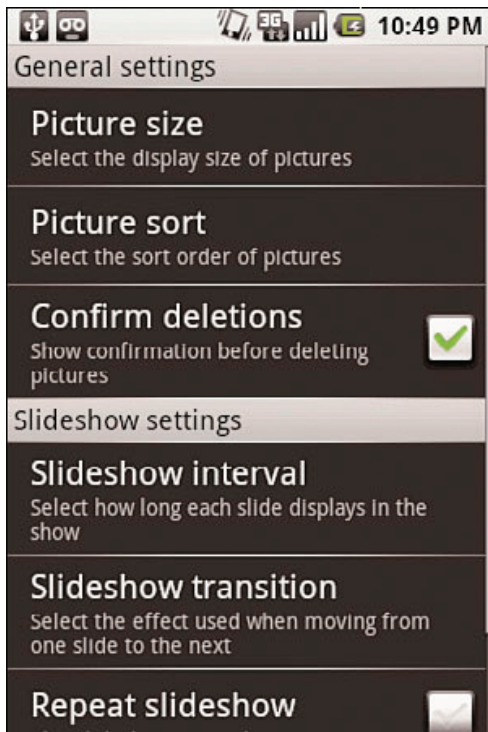
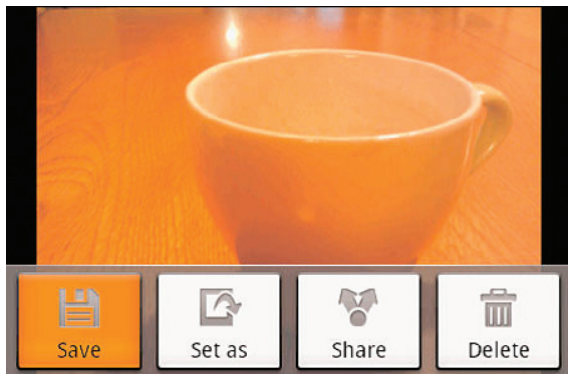
Launcher or directly when using your Camera by touching the thumbnail image at the top right. Here you'll see all the images on your phone including those you have clicked with the Camera and those downloaded from other locations. If you already have synced your phone with a Picasa account associated with the Google account, you can even view the Picasa Web Albums. The main Gallery screen will look like a neatly organised list of albums where you can touch any of them to open, or spread apart your fingers to peek into any album stack. An icon near the top will take you back to the main Gallery view.

When you open an album, the pictures and videos in that album will be displayed in a chronologically ordered grid with the name of the album on



Scroll through all photos in your gallery

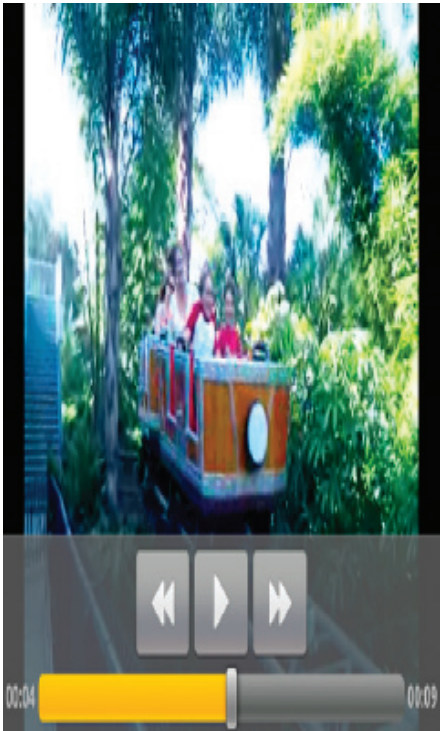
top and another button to switch between grid and stack views. You can use the scroll tool at the bottom of the page to go down the images with a page at a time or simply swipe left and right to scroll. While going through albums too you can switch between views using the Album View Switch near the top right corner of your screen. In addition to working with entire albums or individual photos, you can also manage them in batches- for instance to upload only a few selected shots on the web or send a particular selection to a friend. Select the chosen images from the albums and use the controls at the bottom of the screen to act on the checked items. Else you can share complete albums by touching Share at the bottom of the screen and in the following Menu, touch the application you want to use to share the selected items. The app that you chose opens the pictures or links attached to



Picture Settings in Android

a new message and you can carry on from there depending on where you want to share the images. A handy tip here, if you are sharing an album via Gmail, will be to take care to not delete the original of an attachment before the message is completely sent (make sure it has the Sent label, not the Outbox one), or else the attachment will not be sent.


When you open an image in the Gallery you can use various options display and edit options there itself. To zoom in simply touch double tap or pinch two fingers together and spread them apart to zoo out. While zoomed in, you can swipe or drag the picture around to view others parts. You



Watching a video

will have the option to view all images in a slideshow which can be ended at any time by touching the picture on screen. At the bottom of the image will be a panel containing Share, Delete and a 'More' tab that pops open a sub-menu with various options like Set As which allows you to put up the particular image as a wallpaper or a contact picture for a friend. In both cases you will be prompted to crop the picture as per what you wish to display. Other options include Rotate Left and Right which save the picture in the new orientation and a Crop option to trim down the picture to its essentials using your fingers to adjust the margins of the cropping area. Note that you can only crop images that are on your SD card and not those synced to an app, like for instance in a Picasa web

album. After saving also the original un-cropped version will stay on the card. If you have configured Camera to save location data with your picture, you can view the location in Google Maps while looking up a picture in the Gallery.

To view videos too you can open the Gallery and touch on the file you want to play. The video will run in the orientation you shot it in and can be shared by sending it in email or with a multimedia message. MMS messages have size limits, typically around 3MB which will be nearly a minute of high quality footage or two minutes of a low quality video. Playback controls will appear near the bottom of your screen when you touch a video and you can use them to pause, resume or skip backward and forward. Android allows you to easily put up videos on YouTube by pressing the Share button in the Gallery. 

7 Search, Chat and GPS

7.1 Search

Your Android phone can do all kinds of neat things with its comprehensive access to the web allowing you to search for information on your phone as well as items on the internet using Google search. The Search button opens a box similar to the one on the search engine which characterises Google on the web. You can either type a search query or use the Voice search option instead. To further fasten the process, previously searched items are displayed below the search box. While going through applications like Gmail or Contacts, the application's own search box, identifiable by the app's own icon, opens on pressing Search. You can even add a dedicated Search widget on the Home Screen to search in a particular place like just on the web or a specific application's information on the phone. On touching a dedicated Search widget on your Home Screen, Google search is opened with that location targeted by default.

As you type a search keyword, matching items on your phone and suggestions from Google web search are added to the list of previously chosen search results. Touching the pencil symbol next to a suggestion includes it in the search box and makes way for more suggestions. Touching the suggestion itself opens the item in its appropriate location, like on a browser window or in the Contacts. Business listings are indicated by the familiar balloon shaped Maps marker icon and touching one opens a panel with icons you can touch to call or get details or to add to your contacts.

At first the Google search box is configured to search and provide suggestions from the web and the phone but this can be modified to target searches only to the web or to a single application on the phone. The icon on the left of the search box can be pressed to open a panel with icons for all applications that have been checked in the Searchable items settings so as to include not only Web and contacts but also other apps such as music or installed features such as Twitter and Google Sky. Thus you can easily narrow your searches onto the most used applications. Android gives you various options to cut make your searching most effective though the Search Settings in Menu. You can check or uncheck the kinds of data you want to search for on your phone, erase previously chosen lists of search results that appear as suggestions, include your location when using Google services, manage a web based interface for viewing and sorting through search

history associated with your Google account and so on.

Apart from Search, the brilliant web Browser provided by Google gives your Android ubiquitous access to the web on your fingertips, quite literally! Firstly the Android browser is not Chrome for Android in any way. It can render full web pages that look as they do on a desktop screen most of the time and the latest 2.2 Android upgrade allows the Browser to open sites requiring Adobe Flash, putting it ahead of the pack in that respect. To get to a web site, you can either simply open the Browser app from the home screen or as previously mentioned type in a standard web address into Search to launch the Browser straight into that site. When you open the Browser, the last web page you were viewing is displayed or if you have not used the Browser recently, your home page opens up.

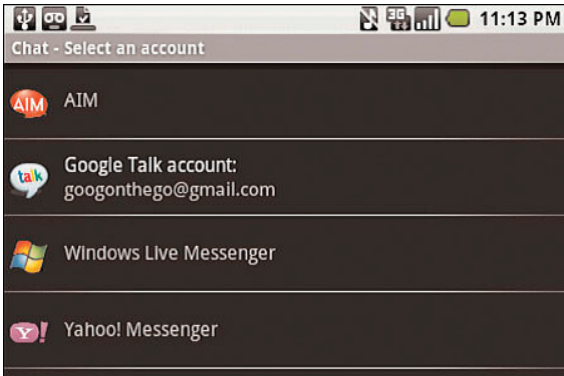
On your Browser you'll see the most visited URLs and bookmarks listed below the address box and they'll change up to match your letters as you start typing a new destination. Like in Contacts, you can use the voice input for more ease (and maybe more fun) by tapping on the microphone icon to the right of the URL bar where you can speck your search queries, but not direct addresses. Jumping forward and backward is simple and done through the Menu and holding down the Back button shows you a list of your recent web wanderings allowing you to quickly reach any of them through a click. Some tech savvy sites have already formatted their web pages to detect the Android browser and offer up a special version with bigger font and fewer columns to make their sites more phone- friendly. If not specifically for Android most sites do have a standard 'mobile version' that fits brilliantly into your screen and is clearer and so organized especially for smaller screens. To navigate the rest of the sites where the entire web page meant for a full screen opens on your phone, Android has easy solutions. So you can use the two magnifying buttons on the lower right corner of your page to zoom into everything on the page- text, pictures, borders, everything, or use the Apple-pioneered finger controls like you use to enlarge increase the size photos in your gallery. To zoom in on a particular focus point on the page, place two fingers over the area, then spread apart the area from that point. To zoom out again put your fingers on separate spots on the screen and bring them back together.

Now going back to the Browser and all of its buttons. The ribbon-with-a-star icon to the right of the URL is the Bookmarks icon, also reachable through the Menu. Your phone will probably come with a list of pre-loaded bookmarks to popular sites and services, but this list can be easily

customized to your individual tastes by deleting the unnecessary ones through the Menu. Pressing and holding a bookmark lets you edit, copy or Share a bookmark or make it your home page. To add a page to your bookmark, press the bookmark button and click on the star on the top left box. Next to the Bookmarks tab are two others- Most Viewed and History which work in the same basic way as your Bookmarks and the press-and-hold commands are similar. To make any of these pages as a bookmark you can simply click on the star icon on their right in the list. The Android web browser makes comfortably handles multiple windows as well. If you want to skip to new page while still keeping the present page open, hit Menu and then New Window. Your new window will open to the home page you picked and you can continue further ahead.

7.2 Chat

Now let us now look into the chat options on your Android. The most common instant messaging service today will have to be Google Talk, and this is brilliantly integrated with the platform. You can use it to communicate in real time with other people who also use the same service on the phone, on the web or with a desktop application. You can start the app through the familiar icon of the voice bubble with 'talk' written inside it, on the Launcher or through



Google Talk and other IM applications

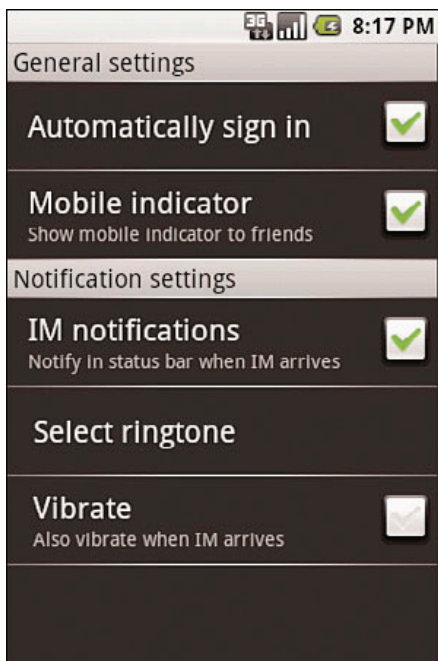
the Home Screen itself, and once signed in, you'll stay so even while using other applications. On opening initially your Friends list will be displayed including all of those you've added using Google Talk on the phone or on the web. Adding friends to this list so you can invite them

to chat can be done through the Add Friend option in Menu, where you can enter the friend's address and then touch Send Invitation. When a contact invites you to become a friend in Google Talk, you receive a notification in

the Status bar and the invitation appears in your Friend's list.

The main screen of the app on the phone is very similar to the Google Talk used on the web. Your own name, status and picture are placed on the top and all your contacts are present in the Friends list below that. Simply touch a contact in this list to enter a message and start chatting up. The messages you send are interleaved on the screen with information about the chat such as whether it's on the record, the time a message was sent if there is no response after a short while and so on. Friends you are presently chatting with are displayed on the top of the list followed by those who are online and available to chat, then those who are busy and finally those who are idle. To switch between active chats you can keep going back to the Friends list through Menu and touch the next contact to carry on the conversation or just swipe left or right on the screen to open the other threads. When in the middle of a conversation, you can invite additional friends to join a group chat by pressing Add to Chat in the Menu, followed by the name of the friend you wish to include. The friend you invite and the current participants receive an invitation to a group chat and all those who accept can join in.

To change your online status, touch your own entry at the top of the Friends list and type in the new message or choose from previous status messages. You can change your picture also in a similar manner by touching your own picture on the left which opens a gallery screen with all the pictures on your phone. Pick the picture you wish to use and crop it according to need and you are ready with a fresh look. You can tinker about the settings to explore options like Go off the Record, which means you will not be storing the chat conversations for future, or manage your friend lists by



IM Settings

making your dearest ones appear always in it through the Always Show Friend in Menu or even prevent those irritating ones through the Block Friend. You can configure your Google Talk to send you a notification with the contents of each message that you receive in a chat and also to sound a ringtone or vibrate the phone. You can even make it sign in automatically when your phone is switched on. Soon enough, Google Talk might prove to be one of the most used features on your phone. So go ahead and stay connected, always!

7.3 GPS

Let us next explore another handy feature on your Android- Maps. Almost all Android phones of today have a free-by-turn built in GPS system. It's constantly updated with not just maps and routes but also brings at your fingertip you road conditions, traffic updates, nearby restaurants, fuel points and much, much more info to make life easier still! By itself, Google's free Navigation app adds more use to your phone than a lot of other features, but what makes the application a show stopper is its entire implementation. Voice commands work smooth as ever and make the app sheer joy to work on. Apart from launching the Map app by tapping on the shortcut, there are many views to get started- like entering an address into the Search Box, which lists the results among which first will be the link to the location on your Maps application, through your Contacts list where clicking the address from the contact sheet pulls it right up on the Map, or even creating a shortcut for your most visited addresses on the home screen. Getting to it in any way you want, you'll see that Maps is one of the most powerful and feature-rich app on your dear Android.


The main view is a slightly modified version of Google Maps on the internet, with little tweaks to make it more finger-friendly. Like in all other applications, expanding and pinching with the fingers on the screen allows for zoom in and zoom out. The Maps view is mostly a rough frame on your location and using GPS, Wi-Fi or cellular triangulation it keeps narrowing down the exact spot. The Menu shows most common features like Search and Directions which are easy to work with. You can type out an address into the search box or look for points of interest like a restaurant or multiplex. The Directions option can be used to bring up a drop-down form, with the first box for Start Point auto filled with the phone's idea of the present location and a second box for your destination. Either location can be altered manually or by clicking on the bookmark style icon on the right to get a few

convenient options like a Contact whose address has been specified or even a point on the map provided by tapping somewhere or picked up from a list of previously starred items for quicker access. Below these you can specify a mode of transport you'd like to consider- a car, public transit or walking, and Maps usually will make smart adjustments based on your choice. These little details and where ever you may be stuck, soon enough you will be good to go! Google will not only provide you with turn-by-turn directions but also give you option to have them laid out on an overhead map. Clicking on any of the steps shown in the directions takes you to that spot on the Map from where on you can zoom in and move around and do everything you'd normally do on a map.

Next on your Menu is another rich sub-category – Layers, which shows you interesting and helpful data points nearby without making you search for them. Within the Layers option you can choose 'Traffic' to show traffic conditions in color stripes of red, green etc based on state data, news reports and other Google-powered apps, 'Satellite' which gives you pictures of an area instead of abstracted maps, 'Terrain' which brings up topographic lines, and 'Buzz' and 'Latitude' which show what other people have been saying or doing in various Google powered social networks. If previous driving directions have been saved as a map layer in Google Maps, those will be available too. And that is not the whole of it! Going further into the 'More Layers' option there is a sub menu of 'My Maps' that shows all the plotted points that have been saved as a particular map or have been imported from different Maps data. And so, if you have set up a map of your favourite cafés in the city and saved it on your phone, you can pull it up any time through My Maps and have all those carefully picked up corner points with you at all times to revisit for a quite cup of coffee with exact driving directions in your hands! Other More Layers options include Wikipedia to point out landmarks or businesses listed out on the all-encompassing user-edited encyclopedia and Favorite Places which can be a fun way to pick out odd little things like a city or person and see favorite spots mapped all over.

Another neat feature provided is the Navigation app. Loading it up on your Android can be done by launching it from the app tray, choosing Navigate from options in a set of directions or through a directions shortcut that can be placed on your home screen. For more fun and convenience you can try the voice input which is best used for non-specifics, so it most likely won't pick up a particular street address accurately but recognize a business and give options to get to the closest location. To work on Navigation, the app

will want to make sure that you have a GPS connection enabled on start up, or else it will open to the Settings screen to resolve the issue before starting. Navigation first asks for a destination which you can input not only by typing or speaking, but even pick out from your Contacts, Starred items or recent destinations. When you are driving, Navigation arranges itself such that all required info is enlarged and easily viewed, like how much distance is still to be covered to the final destination, how much time is left and other useful bits of data. The experience does not end there as Navigation's computer narrator actually speaks out suggestions and instructions before every turn and once the sun has set in your location, you get the Night Mode which reduces the number of streets shown and inverts colors to make the directions clearer.

Also in the Menu are options like My Location which adjusts the map and shows a bright blue dot over the most probable present location and Latitude, or Join Latitude if you are not a member of Google's massive social network that's based on location check-ins. A More option brings up a sub-menu with Clear Map to erase search results, directions or other data that is showing, Starred Item list from your desktop or mobile device, Labs showing a list of more experimental Maps features that can be enabled for an even more enriched experience. You can switch you accounts if you want to use a different Google account to pull up a different list of accumulated Starred items, search history and so on. The generic, boring stuff like Help, Terms of Privacy and Notices/About can also be viewed here itself, if ever there be a need. 

8 Android Market

Your phone can do some wonderful things, and we've talked about many of them. But we'll be honest. It can't do everything without third-party applications. It can't tell you what song is playing when you hold up the phone. It can't tell you how much that book you're holding costs at a number of web sites and local stores. It can't adjust its ringtone or volume based on where you are.

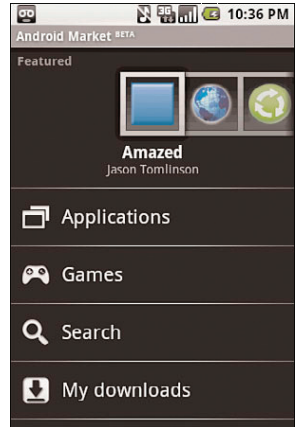
Android Market is where you find applications with such functionality. Tap on the Application tab, and then tap on Market.

8.1 Installing new applications

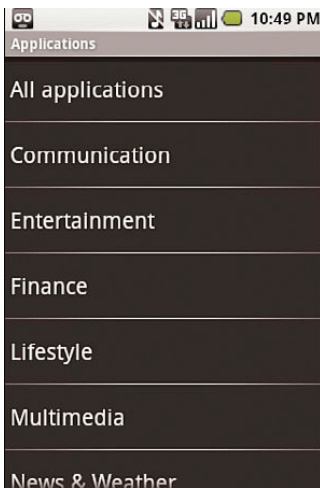
Finding applications is easy. After you open the Market, you have a couple different options. First, at the top of the screen, you have some Featured pieces of software you can install. You can drag the featured applications left or right to scroll through them. To check out a featured application, just tap on it. You see a description of and comments about the software.

Even though the featured applications are pretty interesting, maybe it's better to dive into the Applications option by tapping it. You see a list of categories. You have the option to see applications listed by popularity (number of downloads) or by date.

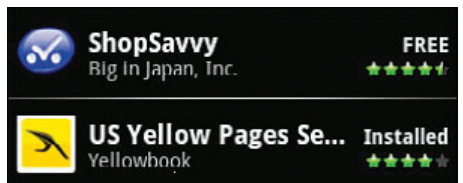
First and foremost is the icon. This is what it will look like on the Application tab. Although you shouldn't judge an application



Android Market: what sets it apart...



The applications are segregated by categories



Install free applications and get more from your Android phone

by its icon, we've seen my fair share of ugly icons. Unlike on your computer, you can't change icons on your phone. Next to that are the application's name and author, which might be a person or a company. You also see a notation about whether the application is installed and whether it has a cost. Below that is a rating of the application by other people who have downloaded and installed it.

8.2 Managing your applications

Whatever application you install, there are some common tips and tricks that we think you should know. First, if you like an application and think you'll use it often, you can move it to the phone's desktop so that it is more easily accessible. Just follow these steps:

- Slide the desktop to where you'd like the icon to live. Remember, your phone's desktop has three screens—the clock in the center, and a whole second and third screen to the right and left.
- Open the Application tab, and tap and hold the icon you'd like to see on your desktop.
- When the phone vibrates, the Application tab disappears and allows you to drop the icon wherever you wish.

If you want to remove an icon, tap and hold it. The Application tab turns red and changes to a trash can. Just drag the icon to the trash can, and it's gone. Second, the Menu button is your friend. If you can't figure something out, try pressing the Menu button to see what options might be there to help you out. Third, some things, such as items in a list, react to being tapped and held. So, when you are experimenting with different applications, be sure to give that method a try.

8.3 Adding applications

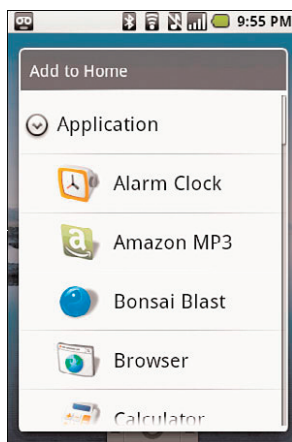
You can add shortcuts to the applications you've installed on your home screen. One way to do this is to drag icons to your home screen, as discussed in the preceding section. But there's another method. First, tap and hold anywhere on the home screen (that's not an application) and select Application from the pop-up menu. Every application you have on your phone is listed here.

Tap the icon you'd like to add. It shows up where you tapped and held the screen. If that's not where you want it, tap and hold the icon and drag it where you want it. If you want it on a different screen, you need to delete the icon and switch to the screen you want it on. As a review, to delete the icon, just tap and hold the icon until the phone vibrates, and drag it to the Application tab, which should now have a little picture of a trash can. When you drag over it, it turns red. When you let go, no more icon.

8.4 Find more applications using Search

After you've spent some time going through the Applications and Games categories, you'll see that some things aren't in the category you expected them to be in. This brings us to the Search function. You can get to Search either directly, on the main screen of the Market, or by pressing the Menu button on any screen within the Market and tapping on Search. Type in your search term, and press the Enter key on the keyboard or tap the Search button.

Search looks for the name, publisher, and description of the application, so try to keep your searches focused, rather than general.



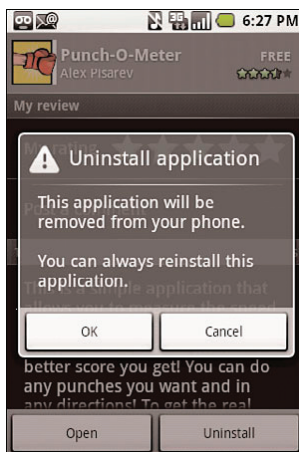
Add to Home is similar to Pin to Start in Windows 7

8.5 Remove unwanted applications

Not every application is worthwhile for every person. So, if you want to get rid of it:

- From anywhere in the Market, press the Menu button.
- Tap My downloads.
- Tap the program you'd like to remove.
- Tap the Uninstall button.
- If you're sure, click OK.
- If you added the icon to your desktop, you need to manually remove it. Tap and hold it until the Application tab turns into a trash can, and then drag the icon to the trash can.

It's important to share why you're uninstalling an application. This feedback does make it back to the application developer, who can use this information to make the application better. You'll find that you can install tons of applications, and more are added all the time. Be sure to rate the applications you download so that others can learn from your opinions. Leave comments on the applications so that the developers can hear your feedback. **d**



Uninstalling applications is as easy as a tap

9 Great apps to try

The Android Market may not have as many apps as the iPhone App Store yet, but there are still enough to be overwhelmed, and it's growing at a breakneck pace. These indispensable Android apps serve a number of purposes with little overlap. Some are free and some have a price tag, but all of them are at (or near) the top of their category.

9.1 Advanced Task Killer

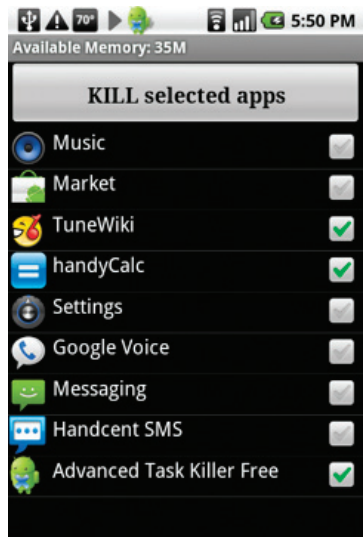
One of the realities of having a multitasking mobile OS in Android is that you have to manage your apps so that they don't hurt performance or battery life. Advanced Task Killer is one of those apps you hope you don't need, but you sometimes must have. It allows you to kill an application with a single click. This particular app killer includes an ignore list, a widget version, and a long-press to menu feature.

9.2 ConnectBot

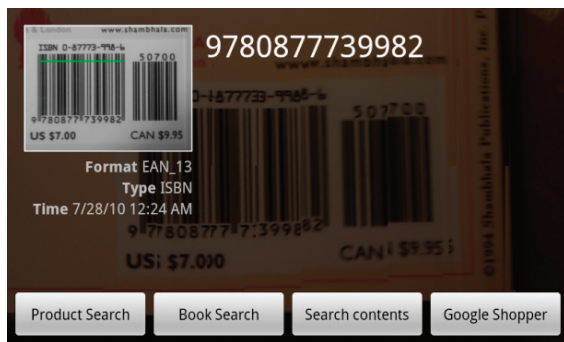
ConnectBot is an open source secure shell client for your Android phone. This client can manage simultaneous ssh connections and copy/paste between apps, and it has shortcuts for <Ctrl> sequences.

9.3 Barcode Scanner

This app turns the Android camera into a barcode scanner. You simply scan a product's UPC code and let the app go to work to find it in Google Product Search or a search on the open Web. You'll be amazed at how fast it works. If you need to find product reviews (or price comparisons) while shopping, all you have to do is scan the bar code with your camera and open up the results. No more having to Google a product and sift through pages for reviews and/or prices.



Now your phone has a Task Manager!



You also get a bar code scanner

9.4 Photoshop Mobile

Photoshop is, of course, the best known photo editor in the world and its mobile app doesn't do anything to hurt that reputation. But while the desktop version is known for having a zillion features, the mobile app is distinguished by its simplicity. It's the best Android (and iPhone) photo editing app for simple crops, brightness adjustments, and sharpens, for example.



Image editor on your phone

9.5 Documents To Go

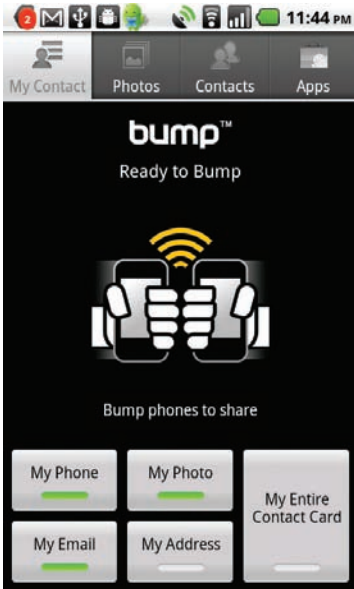
The free version of Documents To Go offers a great little reader for Word and Excel files. You can upgrade to the full version (for \$15) if you want to edit files and add PowerPoint files to the mix. If you do want editing capability, we'd also recommend taking a look at QuickOffice.

9.6 Bump

Bump is a fun (and useful) idea for sharing info between two phones using the accelerometer, and it works across Android and iPhone. You can use it to share contact info (yours and others), photos, and apps. You simply open the Bump app, choose



You can manage all your documents on your phone



Now share information across phones...

what you to share, and then hold the phones in your hands and bump your hands together.

9.7 Handcent SMS

Handcent SMS is a great app that can replace the default messaging app. It is highly customisable and just way better looking. It lets you easily set different notifications for different contacts, change the background for texts, change the color of bubbles for different contacts, and so much more.

9.8 Google Goggles

This is a fun app that is a little but ahead



Click and search with Goggles

of its time. It does visual searches. You can take pictures of things and then the app tries to tell you what they are. It's limited in its scope but it is pretty cool, and it's definitely a peek into the future. One of the coolest features is the ability to take pictures of text in a foreign language and let that app translate for you. In a foreign country, this can help you read street signs and avoid going into the wrong bathroom. :-)

9.9 Google Sky Map

Ever look up at the night sky and try to tell your friends the name of that constellation you're pointing at, or try to remember which planet that is in the southern sky? Google SkyMap lets you point your smartphone at it and get the

information. This is part of a new breed of apps called "Augmented Reality" apps that layer digital information on top of real world experiences.

9.10 Dropbox

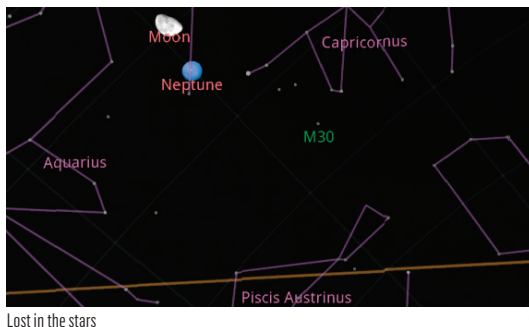
Dropbox is a great cloud service that automatically syncs a folder of files between multiple computers (Windows, Mac, or Linux). This app extends Dropbox to Android and interacts with other apps (such as Documents To Go) to open the files.

9.11 Evernote

This handy app lets you keep track of nearly anything — and in many ways. You can keep track of things with notes, photos, recordings, and more. And with an Evernote account, you can keep everything in sync online and on your PC. If you're looking for a one-stop productivity shop app, this is it. Once you get used to typing on a virtual keyboard (and it honestly can take over a year to do it), then these devices are great for note-taking, and Evernote is a great note-taking app.

8.12 Seismic

Twitter is an amazing instant-intelligence engine and it was made for mobile browsing. Although there's an official Twitter app for Android now, Seismic is still the best Android Twitter client.



9.13 Astro File Manager

Another one of the great things about Android (if you're a geek or a tinkerer) is that you have lower-level access to the system itself. Astro is an app that lets you navigate the Android file system, Copy, paste, delete, move, create folders, open files, you can even install .apk files if you enable unknown application sources.

9.14 Got To Do

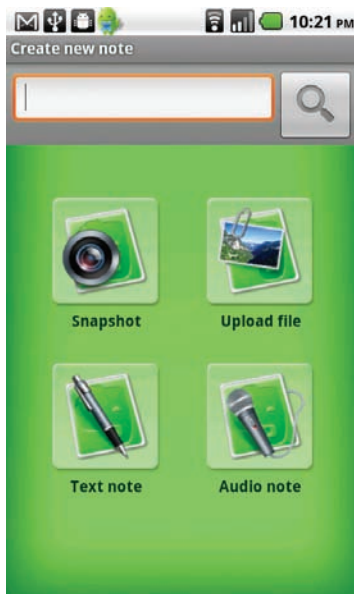
There are plenty of to-do apps to choose from on Android but I prefer Got To Do because of the solid interface and the fact that it can sync with the online service Toodledo.

9.15 Aldiko

Aldiko is the perfect app for book lovers. You can download thousands of public domain books right from the app and you can import your own if need be. The only downside is that it only supports epub books. If you have a collection in some other format, Calibre is a great free ebook manager that can convert to epub.

9.16 Bebbled

Bebbled is a great puzzle game with a bit of a twist. It plays a bit like Bejeweled,



Evernote keeps you updated all the time

only you can turn your phone upside down to reverse the gravity! It's a lot of fun and pretty challenging at times. You can also press a button to reverse the gravity if you don't want to be flipping your phone back and forth.

9.17 Bitblocks

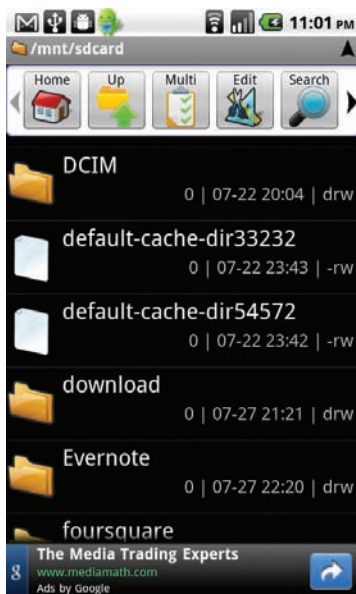
Bitblocks is the best Tetris-like app we have been able to find for free. It looks good and works well. What more can you ask for?

9.18 Cestos

Cestos is what I would describe as a marble battling game. It's a multiplayer game where you set your marbles against another player's marbles. You try to



Take your book collection with you



You can also choose your file manager

destroy each other or knock each other off the stage. Everything about this game is great. You even level up and can customize your look.

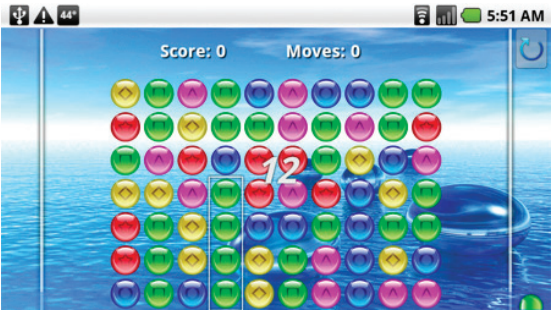
9.19 Gist

Many of us have contact lists scattered across various computers, devices, and online services. Gist is a Web service that can bring them together and even pull in stuff from the Web to help you stay up to date with your most important contacts. There's an Android app as well as an iPhone app.

9.20 Dolphin

Dolphin is one of the best mobile Web browsers. It is fast, reliable, has real

tabs, gestures, and multi-touch. Although the default Android browser is an okay solution, it simply doesn't compare, feature for feature, to Dolphin. Dolphin is also much faster than most of the other Android solutions.



A puzzle game for the fun moments

9.21 My Backup Pro

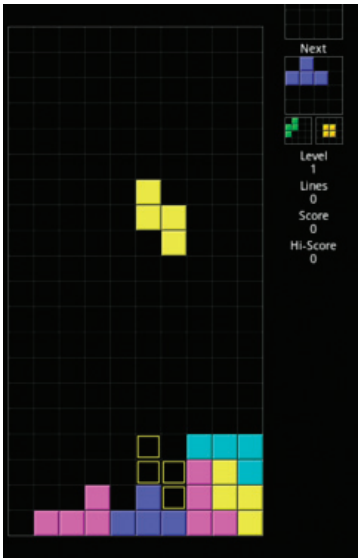
My Backup Pro is one of those apps you hope you never need, but when you do you will be very glad you have it. With this application, you can back up to an SD card (or online site) your applications, contacts, call log, sms logs, settings, shortcuts, and just about anything you need. Another nice feature of this tool is a scheduled backup.

9.22 FeedR

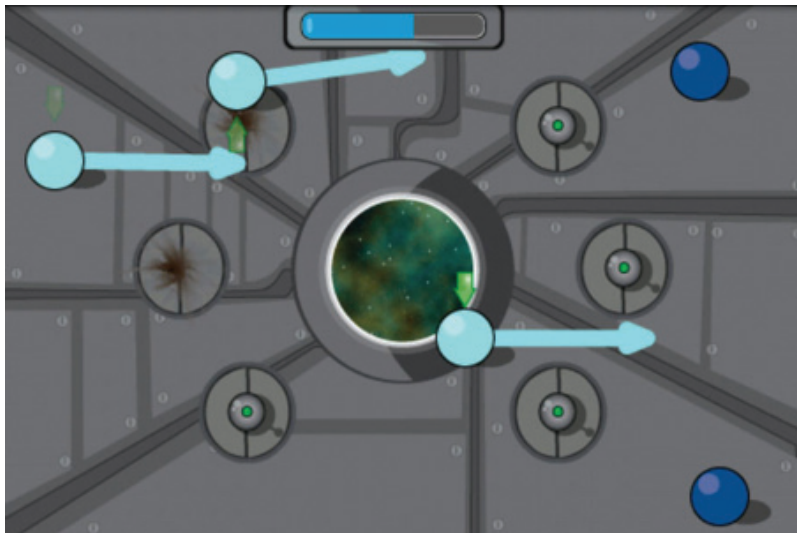
FeedR is an RSS reader that works as both an app and a widget. FeedR can add preconfigured feeds or you can add your own personal favorites. This app beats the competition with its ability to truly auto-update. Many other feed readers (especially those in the widget category) require a user update to function properly. FeedR handles all updates in the background, with no intervention.

9.23 TED Mobile

TED is a fascinating event that features a meeting of some influential thinkers. This app provides a great way to access the videos.



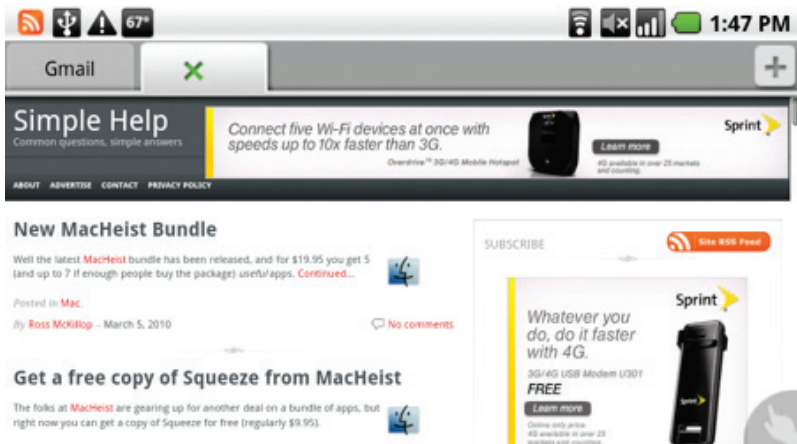
Remember Tetris?



Play marbles! On your Android phone

9.24 Shazam

If you want to impress your friends with a mobile app, show them Shazam. Ever hear a song being played at a store or on the radio and ask yourself,

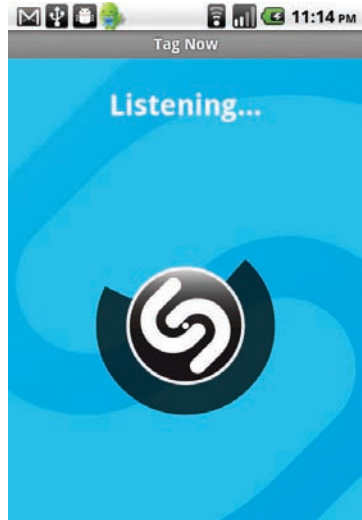


The Dolphin web browser is HTML5 ready, and does Flash too!

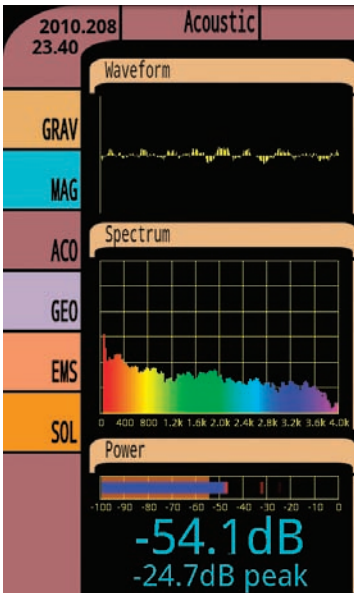
“Oh, what song is that?” That’s where Shazam comes in. Just hit the button and let it listen for 15 seconds, query its database, and then return the name of artist and the song. It has about an 80% success rate.

9.25 Tricorder

A lot of geeks I know like to say that our smartphones are becoming more and more like the Tricorders on Star Trek. Well, here’s a fun app that turns your Android device into a virtual Tricorder. It even offers some useful environmental information, including GPS data, wireless data, and ambient sound measurements.



Shazam tells you the song you are humming



Get your own Tricorder

9.26 FxCamera

Honestly, the camera software on Android is an area where major improvements are needed, but this app is a great example of what’s possible. It has solid camera controls, full customization options, and offers some great effects for photos.

9.27 TuneWiki

TuneWiki is an alternative to the default music app. It has some nice features, like automatically downloading album art, displaying lyrics along with the song, music videos, etc.

9.28 Handycalc

Handycalc is like your built in

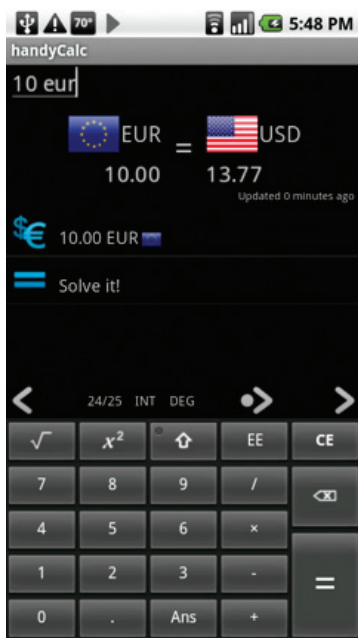
calculator on steroids. It does everything you could want it to. It can graph and it has a unit and currency converter built in. It also comes with a good tutorial to show you what all it can do.

9.29 eBuddy

eBuddy is a great looking IM client that supports many different protocols. This includes Facebook, MSN, Yahoo, AIM, Talk, and possibly more. One thing that it does lack is Skype support.



Add effects to your camera



A powerful converter and calculator

9.30 Wapedia

Wapedia is great for those who use Wikipedia frequently. Basically, it's just a really fast way to access Wikipedia articles. It comes with a widget and it formats the pages to load fast and look great on your phone.

9.31 Last.fm

If you don't know what Last.fm is, it's a website that keeps track of what you listen to and offers recommendations of music you might like. The app lets you access Last.fm's online radio system and also scrobbles all the tracks you listen to with the default music app.

9.32 DroidAnalytics

For some reason Google doesn't have

an official app (for either Android or iPhone) for Google Analytics. The best one we've found on Android is DroidAnalytics. Another good one is mAnalytics.

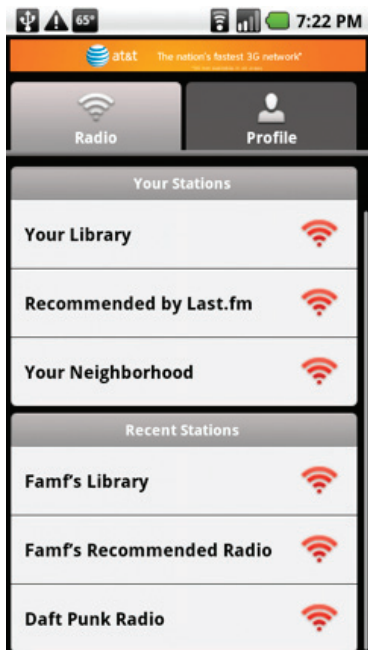
9.33 yongzh

yongzh makes a great number of emulators for Android phones.

9.34 Robotic Guitarist

Robotic Guitarist is a great app for those who play the guitar. It's a chord guide, emulator, tuner, metronome, and more.

9.35 Torrent-fu



Last.fm when you want to stream music



Wikipedia: if you love Wikipedia

Torrent-fu allows you to remotely control your torrents from your phone. You need to be using either uTorrent or Transmission to set this up.

9.36 Widgets

Takeaway: One of the biggest advantages of Android over iPhone is widgets. Android has them, iPhone does not. Widgets are valuable because they can provide an at-a-glance look at lots of different kinds of information and quick access to valuable apps and configuration settings.

Note: A couple things to keep in mind with widgets: 1.) They can sometimes

Current site : Tech Sanity Check [Top Keywords]

Keyword	Visits	Page views	P/V	Bounce	Time
Totals on period (20100627 to 20100727)					
Totals	351,109	429,666	1.22	86.07%	00:52
Top Keywords					
(not set)	309,873	379,251	1.22	85.95%	00:52
verizon 4g	1,986	2,400	1.21	87.66%	00:41
iphone 4 review	1,523	1,917	1.26	85.69%	01:09
iphone 4 battery life	1,076	1,145	1.06	94.61%	00:13
droid x	922	1,292	1.4	77.87%	01:59
iphone 4 reviews	656	820	1.25	84.91%	01:11
iphone 4 battery	468	510	1.09	93.16%	00:17
ipad for business	415	601	1.45	81.20%	01:47
iphone 4	399	483	1.21	87.97%	00:54
blackberry 6	299	334	1.12	92.31%	00:24



If you're a stickler for analytics, use DroidAnalytics

hog resources, bandwidth, and battery life so you should make sure you're using a task killer to regularly refresh your open apps; 2.) Widgets can take up a lot of screen real estate and so you may need to use an alternate home screen launcher, such as Launcher Pro, to give yourself some extra space.



9.36.1 Analytics Widget

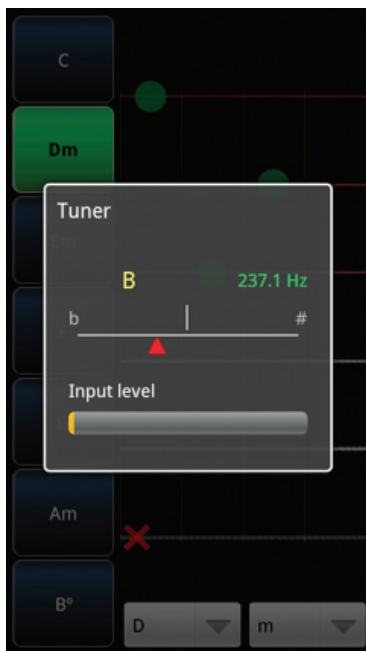
If you use Google Analytics to track Web site traffic, this little widget makes it easy to get a get quick glance at your traffic metrics. It takes up the same amount of space as an app icon and you can set up multiple widgets to track multiple metrics.

9.36.2 Last Call

This widget provides a glance at your last call, which makes it easy to redial or to call back a missed call. You can also click on the widget to go to your full Call Log.

9.36.3 FlightView

For travelers, the FlightView widget is very handy. Rather than digging through apps or Web pages to get a flight status update, you can enter your airline and flight number into this app and it will track it for you.



For the musician in you, there's Robotic Guitarist

9.36.4 Scoreboard

This is a Google widget that lets you keep track of the scores from your favorite sports teams. It shows the last game and the next game (or current game).

9.36.5 3G Watchdog

As most people are aware, "Unlimited Bandwidth" data plans are not unlimited. Most of them are capped at 2GB. That means people are going to need to be more conscious of the bandwidth usage. The 3G Watchdog is a widget that can track it for you.

9.36.6 System Info

This widget provides a great little system monitoring function for battery life, over-heating, memory, and storage.

9.36.7 Pure Calendar

There's a built-in widget that can provide a quick glance at your calendar but Pure Calendar is far more detailed and customizable.

9.36.8 Pure Messenger

The cousin of Pure Calendar is Pure Messenger, which can provide a quick glance at your inbox. It can even integrate SMS messages, Twitter DMs, and Facebook mail.

9.36.9 Extended Controls

Android comes with a “Power Control” widget (bottom) that lets you quickly toggle Wi-Fi, Bluetooth, Brightness, and more. The “Extended Controls” widget, allows you to create a customized version of Power Control with a lot more toggle options.

9.36.10 Battery Watcher

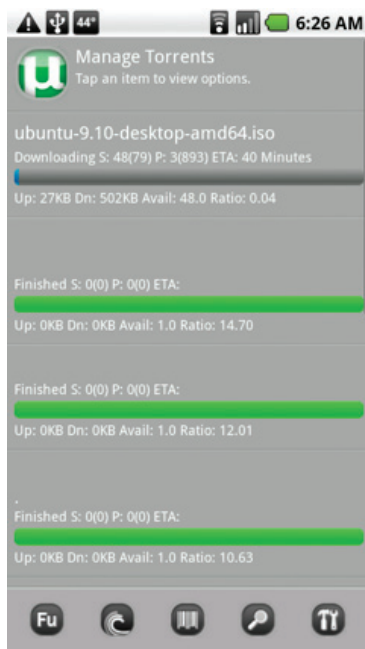
This widget visually indicates battery percentage.

9.36.11 Picture Dial

This is a smartphone speed dial app that allows you to set up your most important and most frequently-dialed people or numbers based on photos. You can see the two sizes of the widget, one with two numbers and one with four. You can also stack multiple widgets on the same page. The default configuration is that you select a contact and then assign phone, text, or email to the speed dial button.

9.36.12 Buzzbox

Buzzbox offers a no-frills widget for quickly glancing at the news. There are a bunch of pre-configured RSS sources (including some good ones for tech) and you can easily add your own.



Keep track of your favourite torrents from your phone



Yongzh is an emulator for Android

9.36.13 SMS Unread Count

The basic premise here is that this widget replaces your Messaging (SMS) icon with a widget that looks like an icon but includes a little red circle in the upper right corner with the number of unread messages you have (mirroring the iPhone UI). The app can also do this for Gmail and Phone (missed calls). **d**

10 Tips and Tricks

10.1 Voice actions

Tell your phone what to do by pressing the microphone icon next to the search box on the home screen, or long press the magnifying glass. You can tell it to send an email or text message ("send text to mom, see you for dinner at 7"), call someone ("call mom"), navigate somewhere ("navigate to brigade road"), or listen to music ("listen to Desert Rose").

10.2 Turn a Gallery stack into a slideshow

In Gallery, when you are looking at a stack of photos, put two fingers on the stack and spread them. The stack spreads out and the pictures flow from one finger to the other, a moving slideshow that lets you see all the photos.

10.3 Easy text copy/paste from a web page

To copy/paste from a web page, long press some text, drag the handles around to select the text you want to copy, and press somewhere in the highlighted region. To paste, simply long press a text entry box and select paste. Gmail is a bit different: you need to go to Menu > More > Select Text.

10.4 Turn your phone into a Wi-Fi hotspot

Go to Settings > Wireless & Networks > Tethering & Portable Hotspot.

10.5 Use shortcut keys

If you want to take advantage of special characters, delete entire lines of text, use only capital letters, or other functions it's important that you learn how to do each of those with ease using device shortcut keys.

Shift+Key to capitalise a word: You can Shift+Key to capitalise a letter instead of going to a separate all caps keyboard.

Auto-complete: The space bar lights up when auto-complete can finish a word.

Quick replace: Tap on any previously typed word, then tap on a suggestion to automatically replace it with the suggested word.

Easy access to special characters (like numbers, punctuation): Press and hold any key to go to the special character keyboard. You can also press and hold the "," key for an extensive punctuation keyboard.

Insert special character: Press [Alt] + Spacebar

Highlight text: Press [Shift] and roll Trackball

Turn on all caps: Press [Shift] Twice

Delete entire line of text: Press [Alt] + [Delete]

Move cursor to end or beginning of text: Press Alt while scrolling Trackball

Insert a Tab space: Press [Alt] + [Q]

Spacebar: Page down in any web page/document view

[Shift] + Spacebar: Page up in any web page/document view

[Alt] + Spacebar: Insert a special character

[Shift] + [Del]: Delete the character to the right of the cursor

[Alt] + [Del]: Delete an entire line

[Shift] (press it twice): Activate caps-lock; press shift once more to exit

[Alt] + Trackball-Left: Move cursor to beginning of line

[Alt] + Trackball-Right: Move cursor to end of line

[Alt] + Trackball-Up: Move cursor to top of page

[Alt] + Trackball-Down: Move cursor to bottom of page

[Shift] + Trackball-Left/Right: Highlight text for cutting or copying

Menu + [X]: Cut text (will cut all text on-screen unless specific characters are highlighted)

Menu + [C]: Copy text to clipboard (will copy all text on-screen unless specific characters are highlighted)

Menu + [V]: Paste text from clipboard

Menu + [A]: Select all text in the current field

10.5.1 Browsing

Menu + [I]: Zoom in

Menu + [O]: Zoom out

Menu + [J]: Go back a page

Menu + [K]: Go forward a page

Menu + [R]: Refresh current page

Menu + [F]: Find on page

Menu + [B]: Open bookmarks

Menu + [S]: Open social network sharing menu

Menu + [H]: View browsing history

Menu + [S]: Open browser settings

10.5.2 Gmail

[F]: Forward current message (works only while inside the message)

[R]: Reply to current message (works only while inside the message)

[A]: Reply-all to current message (works only while inside the message)

[Y]: Archive message (works from within message or while on main inbox list)

Menu + [U]: Refresh inbox

Menu + [C]: Compose new e-mail

Enter: Open an e-mail (from the main inbox list)

[Alt] + Trackball-Up: Jump to top of inbox

[Alt] + Trackball-Down: Jump to bottom of inbox

10.5.3 Apps

Search + [B]: Open browser

Search + [C]: Open contacts

Search + [E]: Open e-mail

Search + [G]: Open Gmail

Search + [I]: Open calendar

Search + [M]: Open maps

Search + [P]: Open music

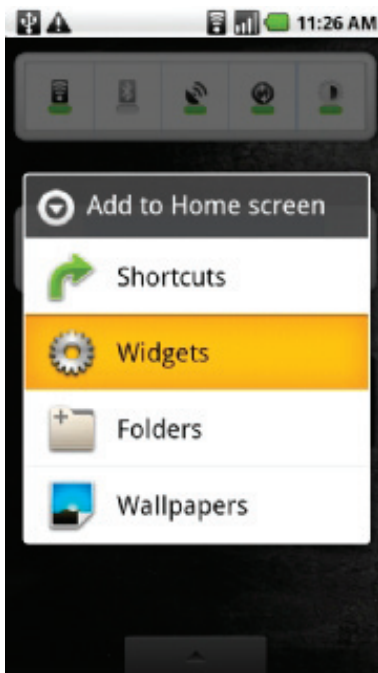
Search + [S]: Open text messaging

Search + [Y]: Open YouTube

You can also customise keyboard shortcuts for applications: Just go into "Applications" off the main system settings menu, then select "Quick Launch." From there, you can change any of the above app-controlling hotkeys and add in your own.

10.6 Optimise your home screen

To add a widget, hold your finger on any open space, and then select 'Widgets' from the pop-up menu.1. Make the most of your space by using widgets--dynamic programs that operate right on your home screen. Simply hold your finger on any open space, and then select Widgets from the pop-up menu. Widgets come in a huge variety of sizes and functions, so search the Android Market to find what works for you.



You can easily customise your home screen in Android

10.7 Use MPEG-4 H.264

Google Android has built-in hardware for video playback acceleration. Specifically the hardware is meant to give MPEG-4 H.264 file playback a much smoother return on your display. You can find the settings for MPEG-4 playback on the standard Google Android "Video Player" which unfortunately has to be downloaded from the Android Marketplace, as Android does not come equipped with a video player. On the other hand, the Video Player is free and downloads in a matter of seconds.

10.8 The Hard Search key

The little symbol on your Google Android front screen that looks like a magnifying glass will quickly bring you to the Google Search Page, which is a great feature for quick online searching, however the key can also be used for even further convenience. For instance, if you're on any Google web site, such as YouTube you can click on that same option and the program will then search that Google owned web site for any search term you type into the search box that appears.

Another great function of this feature is that it is a specific box for each app, for YouTube it may be just a typical search box, whereas for Google Maps you will be prompted for information pertaining to that program such as address, city, state and zip code.

For quick launch search functionality that's specific to Google web pages there really isn't anything better than the included search functionality of Google Android.

10.9 Other Tips

- Prefer not to be bothered by a sound every time an email arrives? Head into Gmail's Settings menu and set its ringtone to Silent. You'll still see new-message alerts in the notification panel at the top of your screen, and you can always pull the panel down to get detailed information. You can configure text messaging and other alert-generating apps the same way.
- Set up one-touch dialing for the people you call the most. Hold your finger on an open space and select Shortcuts. Then, touch Direct dial and pick the person from your contact list. If one-touch texting is what you crave, use the Direct message option instead.
- To drop your favourite web pages onto your home screen, long-press on any site in your browser's bookmarks and then select the Add shortcut to home option.

- Try using folders to keep your home screen organised. Long-press on a blank space and select Folders to create one. You can then drag and drop frequently used contacts, apps, or other shortcuts into it to cut down on clutter. To rename a folder, press and hold the folder's title bar while it's open.
- You can set your own hotkeys to open apps, too. Head into the main Settings menu, select Applications, and then choose Quick Launch to get started.
- If the on-screen keyboard pops up when you don't want it, touch it and swipe downward to make it disappear.
- You can see the current date at any time by touching your finger to the top-left corner of the screen.
- To load files onto your Android phone, plug the handset into your PC and pull down the notification panel. Tap the USB connected box, and then tap Mount when the confirmation dialog box appears. Your phone will appear as a hard drive on your PC, and you can then drag and drop files as you wish.
- Sync your Outlook calendar with your phone without the hassle. Install Google Calendar Sync and let it do the work for you.
- Want to have your PC's browser bookmarks on your Android phone? Download MyBookmarks from the Market to import them.

10.10 Conclusion

The Google Android mobile Operating System is still in its infancy, but the number of operations that can be mastered are already numerous and will surely continue to grow as new updates become available. Whether you want to use Android Apps to serve your everyday needs or just learn some simple tips to help you more easily navigate your device we hope the information above gave you a little more insight into your device's capabilities. **d**

11 Common issues

Your phone is a complicated piece of equipment. Sure, it's small, and it appears relatively simple on the outside, but a lot of little things can go wrong. We don't want to scare you, though. Most of the problems you will encounter are pretty simple to resolve. This chapter covers a few of the basic problems you might encounter and helps you take some steps to fix them.

Anything can break. Even going back to the tin cans connected with string that you might have used as a child, problems happen. If the string broke, you couldn't hear the other person. Technology is no different. As technology gets more advanced, often more individual components can have problems. Hardware issues can take several different forms.

11.1 My Phone Is Damn Slow

If you've been using your phone for a while, you might notice that tapping an icon or pressing a button doesn't work as well as it used to. You might tap the Browser picture and have to wait a full minute for the browser to open. Or you might press the Home button while browsing the Internet and have to wait for what seems like forever to return to the home screen.

The most common reason for this is that a program on your phone isn't releasing resources properly. That sounds kind of complicated, so let's explore it a little bit. Your phone has a limited amount of memory. Think of memory as a bowl of pebbles. Every time you use a program (such as Gmail or the browser), that program takes a handful of pebbles from the bowl and uses them to do things such as display text on the screen. Usually, when you close a program, it puts all those pebbles back in the bowl. However, sometimes the program holds onto those pebbles. If you have too many programs holding onto their pebbles, the bowl eventually will be nearly empty. If the bowl is nearly empty, any new program won't be able to grab enough pebbles to run well.

This problem has a couple of resolutions. The easiest solution is to simply reboot your phone. Rebooting is the technical term for turning the power off.

If this does not resolve the slow response time, a recently installed program probably is causing your phone to run slowly. Start with the last application you installed, and uninstall it. To uninstall an application, follow these steps:

- Tap the Application tab, and then tap Settings.
- Tap Applications.

- Tap Manage applications to display a list of all currently installed applications.
- Tap the most recently installed application.
- Tap the Uninstall button to uninstall your application.
- Tap OK if you want to uninstall the application or Cancel if you've changed your mind.

After you uninstall one application, reboot the phone and see if the phone performs better. If not, uninstall the next most recently installed application, reboot, and try again. If, after uninstalling a handful of applications, your phone still isn't performing well, you might need to completely reset the phone.

11.2 My Phone Crashed

You were in the middle of a call, or you were playing a game or browsing the Internet, and all of a sudden the phone just shut down without warning. What's up with that? Well, there's no way to know for sure, but the most likely explanation is that a program running on the phone did something it wasn't supposed to. Often this happens when a program tries to tell the hardware to do something it can't do.

Unfortunately, there isn't much you can do about a crash other than just power the phone back on. As soon as the phone turns back on, try to repeat the action you were taking when the phone shut down. If it shuts down again, there is probably something wrong with the application you were using. In other words, you've probably encountered a bug. Either uninstall the application, or see if an update is available for it that fixes the problem.

If the phone keeps crashing when you do something simple like making a phone call or opening the Google home page in the browser, you might need to reset the phone.

11.3 My Phone Won't Do Anything

Are you pressing buttons and nothing's happening? Have you tried to call your mobile phone from a land line and it doesn't ring? What do you do?

Well, the simple answer is that you need to reboot your phone. Follow the normal steps to reboot your phone. If those instructions don't work, you'll have to remove the phone's back cover and then remove the battery. Leave the battery out of the phone for at least 30 seconds, and then reinsert the battery and replace the back cover. Power the phone back on again; everything should return to normal. If not, you might need to reset the phone.

11.4 I Dropped My Phone in Water

Take a random poll of your friends. Chances are, at least one of them has dropped his or her phone into some kind of liquid. Hopefully, the liquid was clean water, but we both know people who have dropped their phone in rather unmentionable places.

So what do you do if your phone comes in contact with water? (If you dropped your phone into some other liquid, like a glass of coke, it's almost surely dead.) Well, there are no guarantees that these steps will work, but if you follow them, they will give you the best chance of being able to use your phone again:

- Immediately remove your phone's back cover and battery.
- Set the phone, battery, and cover on a dry, lint-free towel.
- Do not touch the phone for three days.
- Has it been three days? No? Don't touch the phone. Really.
- Put the battery back in the phone, replace the cover, and try to power on the phone.
- If the phone doesn't turn on, or behaves oddly, you can remove the battery again and leave the phone for another two days.

If, after the full five days, the phone still doesn't work, it probably never will. Electronics don't respond well to water, and they do even worse if submerged in most any other liquid. However, unless your phone shorts out when it is dropped in the water, it is very possible that after the phone and all of its internal components dry completely, the phone will work just fine. We recommend three to five days of drying time.

11.5 Resetting Your Phone

Not to sound like a broken record, but if your phone crashes, or locks up (stops responding to anything you do), or just runs slower than you can stand, and the previous procedures don't fix the problems, you probably need to reset it. This should be used only as a last resort, because you will lose all installed applications and all custom data stored on the phone. Any information that you have stored in your Google account, such as your contacts and email, will still exist in your Google account, but you'll have to set up the phone again to synchronize that information to your phone.

To reset your phone, follow these steps:


- Power off the phone by pressing the red Hang Up button.
- After the device has powered down, hold down the Home key and press the red Hang Up button to restart the phone. Keep the keys held down until

you have a screen that shows a picture of the phone and the exclamation warning.

- Slide open the keyboard and press Alt+W.

The phone should reboot. It will be just like you took it out of the box.

11.6 Getting Help

If all else fails, there's always the Internet. Yes, the Internet is a wonderful, magical place where help abounds. No matter how smart you are (and I'm sure you are very smart), there is almost always someone on the Internet who is smarter than you. Or, at the very least, you'll find someone who knows more about your mobile phone than you do. These people are quite often very helpful and are happy to freely donate their time to solve a problem you might have. 

12 Android 3.0

Now that you have a fair taste of Android 2.3, you are obviously wondering what can you expect in the future. Google recently announced that it will



be Android 3.0, aka HoneyComb and it is specifically optimized for devices with larger screen sizes, particularly tablets. It will come with a completely different “holographic” UI design from its previous variants, and also include an elegant, content-focused interaction model.

From a user point of view, it will build on the things that you love most about Android - refined multitasking, rich notifications, Home screen customization, widgets, and more - and transform them with a vibrant, 3D experience and deeper interactivity, making them even better than before. Applications written for Android 3.0 will be able to use an extended set of UI objects, powerful graphics, and media capabilities to engage users in new ways.

The main features of Android 3.0 will be:

12.1 System Bar, for global status and notifications

You will have access to notifications, system status, and soft navigation buttons in a System Bar across the system and in all applications. The System Bar will be always present and act as a key touch point for users.

There will also be a new "lights out mode", which will dim the System bar for full-screen viewing, such as for videos.

12.2 Action Bar, for application control

You will have access to contextual options, navigation, widgets, or other types of content in an Action Bar in every application.

12.3 Customizable Home screens

There will be five customizable Home screens, which will give users instant access to all parts of the system from any context. Each of these will offer a large grid that maintains spatial arrangement in all orientations. You will be able to select and manipulate Home screen widgets, app shortcuts, and wallpapers using a dedicated visual layout mode. Each Home screen will also offer a familiar launcher for access to all installed applications, as well as a Search box for universal search of apps, contacts, media files, web content, and more.

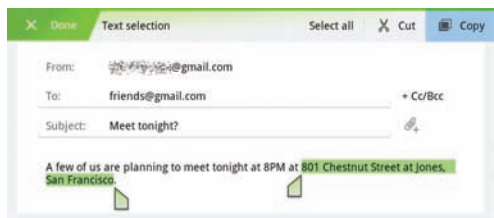


12.4 Recent Apps, for easy visual multitasking

Since multitasking is a key strength of Android and central to the Android 3.0 experience, in Android 3.0, you will be able to use the Recent Apps list in the System Bar to see the tasks underway and quickly jump from one application context to another.

12.5 Redesigned keyboard

The Android soft keyboard will be redesigned to make entering text fast and accurate on larger screen sizes by reshaping the keys, and repositioning them for improved targeting. There



will be new keys added, such as a Tab key, to provide richer and more efficient text input. You will be able to touch-hold keys to access menus of special characters and switch text/voice input modes from a button in the System Bar.

12.6 Improved text selection, copy and paste

When entering or viewing text, a new UI will lets you quickly select a word by press-holding and then adjusting the selection area as needed by dragging a set of bounding arrows to new positions, similar to the Samsung TouchWiz modification in Samsung Galaxy S.

12.7 New connectivity options

Android 3.0 will include new connectivity features that will add versatility and convenience for users. It is promised to have built-in support for Media/Photo Transfer Protocol that will let you instantly sync media files with a USB-connected camera or desktop computer, without needing to mount a USB mass-storage device. For improved wi-fi connectivity, a new combo scan is proposed that will reduce scan times across bands and filters.

12.8 Updated set of standard apps

The Android 3.0 will include an updated set of standard applications that are designed for use on larger screen devices:

12.8.1 Browser

The browser will include new features that will let users navigate and organize more efficiently. Multiple tabs replace browser windows and a new “incognito” mode will allow anonymous browsing. Bookmarks and history will be presented and managed in a single unified view. Users will be able to choose to automatically sign into Google sites on the browser with a supplied account and sync bookmarks with Google Chrome. New multitouch support is also touted to be available to JavaScript and plugins. You will be able to enjoy a better browsing experience at non-mobile sites through an improved zoom and viewport model, overflow scrolling, support for fixed positioning, and more.



12.8.2 Camera and Gallery

The Camera application is supposed to have been redesigned to take advantage of a larger screen for quick access to exposure, focus, flash, zoom, front-facing camera, and more. To let users capture scenes in new ways, it adds built-in support for time-lapse video recording. The Gallery application lets users view albums and other collections in full-screen mode, with easy access to thumbnails for other photos in the collection.

12.8.3 Contacts

The Contacts app will use a new two-pane UI and Fast Scroll to let users easily organize and locate contacts. It will also offer improved formatting of international phone numbers as user types, based on home country and an international number parsing library. Contact information will be presented in a card-like UI, making it easier for users to read and edit contacts.

12.8.4 Email

The Email application will use a new two-pane UI to make viewing and organizing messages more efficient. The app will let users select one or more messages, then select an action from the Action Bar, such as moving them to a folder. You will also be able to sync attachments for later viewing and keep track of email using a home screen Widget.

12.9 New Developer Features

The Android 3.0 platform will offer all of the tools developers needed to create incredible visual and interaction experiences on these devices.

12.9.1 New UI Framework for creating great tablet apps

Activity fragments, for greater control of content and design flexibility

You will be able to break the Activities of their applications into subcomponents called Fragments, then combine them in a variety of ways to create a richer, more interactive experience. For example, an application can use a set of Fragments to create a true multipane UI, with the user being able to interact with each pane independently. Fragments can be added, removed, replaced, and animated inside an Activity dynamically, and they are modular and reusable across multiple Activities. Because they are modular, Fragments will also offer an efficient way for developers to write applications that can run properly on both larger screen as well as smaller screen devices.

12.9.2 Redesigned UI widgets

Widgets saved to the home screen on Honeycomb tablets are going to have a whole new level of functionality available. Rather than passively relaying information to the user, they'll be interactive. Gestures can be used to scroll through 3D stacks or lists of content, while touch gestures can also flip and move the widget's innards like never before.



The new UI widgets are redesigned for use on larger screens such as tablets and incorporate the new holographic UI theme. Several new widget types will be available, including a 3D stack, search box, a date/time picker, number picker, calendar, popup menu, and others. Most of the redesigned UI widgets will now be able to be used as remote views in application widgets displayed on the home screen.

12.9.3 Expanded Home screen widgets

Developers will be able to use more standard UI widget types home screen widgets, including widgets that let users flip through collections of content as 3D stacks, grids, or lists. You will be able to interact with the home screen widgets in new ways, such as by using touch gestures to scroll and flip the content displayed in a widget.

12.9.4 Persistent Action Bar

The platform will provide each application with its own instance of the Action Bar at the top of the screen, which the application can use to give the user quick access to contextual options, widgets, status, navigation, and more. The Action Bar will let the developers expose more features of their applications to users in a familiar location, while also unifying the experience of using an application that spans multiple Activities or states.

12.9.5 Richer notifications

Notifications are a key part of the Android user experience because they let applications show key updates and status information to users in real time. Android 3.0 plans to extend this capability, letting developers include richer content and control more properties. A new builder class will let developers quickly create notifications that include large and small icons, a title, a priority flag, and any properties already available in previous versions. Notifications will offer more types of content by building on the expanded set of UI Widgets that are now available as remote Views.



12.9.6 Multiselect, clipboard, and drag-and-drop

The platform plans to offer convenient new interaction modes that developers can use. For managing collections of items in lists or grids, developers can offer a new multiselect mode that lets users choose multiple items for an action. Developers can also use a new system-wide Clipboard to let users easily copy any type of data into and out of their applications. To make it easier for users to manage and organize files, developers can add drag-and-drop interaction through a DragEvent framework.

12.10 High-performance 2D and 3D graphics

12.10.1 New animation framework

The platform includes a flexible new animation framework that lets developers easily animate the properties of UI elements such as Views, Widgets, Fragments, Drawables, or any arbitrary object. Animations can create fades or movement between states, loop an animated image or an existing animation, change colors, and much more. Adding animation to UI elements can add visual interest to an application and refine the user experience, to keep users engaged.

12.10.2 Hardware-accelerated 2D graphics

Android 3.0 offers a new hardware-accelerated OpenGL renderer that gives a performance boost to many common graphics operations for applications running in the Android framework. When the renderer is enabled, most operations in Canvas, Paint, Xfermode, ColorFilter, Shader, and Camera are accelerated. Developers can control how hardware-acceleration is applied at every level, from enabling it globally in an application to enabling it in specific Activities and Views inside the application.

12.10.3 Renderscript 3D graphics engine

Renderscript is a runtime 3D framework that provides both an API for building 3D scenes as well as a special, platform-independent shader language for maximum performance. Using Renderscript, you can accelerate graphics operations and data processing. Renderscript is an ideal way to create high-performance 3D effects for applications, wallpapers, carousels, and more.

12.11 Support for multicore processor architectures

Android 3.0 is the first version of the platform designed to run on either single or multicore processor architectures. A variety of changes in the Dalvik VM, Bionic library, and elsewhere add support for symmetric multiprocessing in multicore environments. These optimizations can benefit all applications, even those that are single-threaded. For example, with two active cores, a single-threaded application might still see a performance boost if the Dalvik garbage collector runs on the second core. The system will arrange for this automatically.

12.14 Rich multimedia and connectivity

HTTP Live streaming

Applications can now pass an M3U playlist URL to the media framework to begin an HTTP Live streaming session. The media framework supports most of the HTTP Live streaming specification, including adaptive bit rate.

12.14.1 Pluggable DRM framework

Android 3.0 includes an extensible DRM framework that lets applications manage protected content according to a variety of DRM mechanisms that may be available on the device. For application developers, the framework API offers an consistent, unified API that simplifies the management of protected content, regardless of the underlying DRM engines.

12.14.2 Digital media file transfer

The platform includes built-in support for Media/Picture Transfer Protocol (MTP/PTP) over USB, which lets users easily transfer any type of media files between devices and to a host computer. Developers can build on this support, creating applications that let users create or manage media files that they may want to transfer or share across devices.


12.14.3 More types of connectivity

The platform offers new connectivity that developers can build on. API support for Bluetooth A2DP and HSP profiles lets applications query Bluetooth profiles for connected devices, audio state, and more, then notify the user. For example, a music application can check connectivity and status and let the user know that music is playing through a stereo headset. Applications can also register to receive system broadcasts of pre-defined vendor-specific AT commands, such as Platronics Xevent. For example, an application could receive broadcasts that indicate a connected device's battery level and could notify the user or take other action as needed. Applications can also take advantage of the platform's new support for full keyboards connected by USB or Bluetooth.

12.15 Enhancements for enterprise

In Android 3.0, developers of device administration applications will be able to support new types of policies, including policies for encrypted storage, password expiration, password history, and password complex characters required.

12.16 Compatibility with existing apps

Android 3.0 will bring a UI designed for tablets and other larger screen devices, but will also be fully compatible with applications developed for earlier versions of the platform, or for smaller screen sizes. Existing applications will be able to seamlessly participate in the new holographic UI theme without code changes, by adding a single attribute in their manifest files. The platform will emulate the Menu key, which is replaced by the overflow menu in the Action Bar in the new UI. Developers wanting to take fuller advantage of larger screen sizes will also be able to create dedicated layouts and assets for larger screens and add them to their existing applications. 



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